

## EDUCATION:

# OPEN ECONOMY MAKEOVER

Ever since the *Nation at Risk* report in 1983 warned America about the perils of a failing public education system, most debates about the future of public education have focused on structural fixes to a 20th-century institution. Issues of funding, class size, standards, testing, and school have shaped conversations at the state and national levels. At best, these discussions have led to incremental changes. Now, however, the open economy, with its flexible network structures, self-organizing groups, and cooperative practices, may offer solutions that fundamentally transform public education into a 21st-century institution, staking out alternative ways to manage resources and create value.

## EDUCATION: THE NEXT FRONTIER FOR DISRUPTION

The open economy has already shaken the economic assumptions of many commercial industries. Entertainment, software, and news media are waking up to a world of grassroots citizen reporters, critics, editors, self-publishers, and cultural producers using blogs, YouTube, podcasts, and other participatory media. Businesses in the pharmaceutical, design, and manufacturing industries are restructuring R&D processes using so-called solutions commons and distributed, collaborative knowledge bases to catalyze innovation. Consumer products industries are recognizing that personal media and social networks have the clout and passion to put products and services on the consumer's radar screen almost instantaneously.

Over the next decade, the open economy will produce similar disruptions in the public sector. Philanthropies are leveraging the dynamics of bottom-up value creation to invest in the social good and turn a profit. The health system in the United Kingdom is promoting smart wellness mobs and transparent health databases to support individual and group management of health. Public education in the United States is next.

## FROM OPEN ECONOMY TO LEARNING ECONOMY: THE KEY DRIVERS

The knowledge economy and a growing consumer value on personal growth are driving the expansion of a diverse market for learning experiences. Innovative public schools and districts will acknowledge that they are participants in this expanding market, as their students and parents integrate products, services, and experiences from across this diversifying public-private market ecology. Among the key drivers will be:

- **Personalized and participatory pedagogy:** From new brain research that supports individual learning models to new media platforms for ad hoc learning communities and experiences, learning products and paths will become more personal and participatory.

- **Media-rich pervasive learning:** From online social-networking sites like MySpace, Facebook, and Xanga to multiplayer games and virtual worlds, immersive media will be key venues for serious play, social experimentation, identity formation, and development of a new civic voice for youth.
- **New learning agents:** New learning media and venues bring new kinds of people and talent into the learning economy, transforming conventional views of education as a profession.
- **New urban-wilderness lifestyles:** Urban learning will focus on bottom-up innovations that address urban needs, such as deteriorating infrastructure, poor health status, and growing diversity and uncertainty.

## NEW COMMONS: THE MODELS FOR NEW LEARNING INSTITUTIONS

The open economy will intensify the democratization of learning and challenge the hold that public education institutions maintain on the majority of K-12 students, teachers, and parents. New digital media will continue to distribute the authority of knowledge creation across a vast web of learners, mentors, experts, and coaches. New forms of social networking and self-organization will catalyze the emergence of diverse forms of learning environments and knowledge acquisition.

All these innovations represent new kinds of commons that provide a real alternative to education as a monopoly public good. Formal institutions that recognize this shift and find ways to participate in these commons will transform what we think of as education; those that fail to find new ways to support bottom-up learning will lose relevance, political support, and a respected niche as civic anchors of local communities.

—Andrea Saveri



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## APPLYING THE OPEN ECONOMY TOOLKIT: THE DILEMMA OF K-12 EDUCATION

ITF's Open Economy Toolkit is a six-step process for rethinking complex issues in new terms—to find ways to resolve tensions in seemingly intractable dilemmas. As such, it provides a framework for thinking, envisioning, and evaluating alternative strategies to complex situations like K–12 public education in the United States.

In this Perspective, we use the toolkit to take a close-up look at one strategy that has engendered much debate—charter schools. We neither advocate charter schools nor rule them out, but rather we want to understand how the dilemma they pose can be resolved through open economy principles.

### BEFORE YOU START

Because most people come to a strategic design process with a general sense of the problem to be solved—and often with some favored solutions—we always start the toolkit process by expressing the problem and listing the responses that have been suggested.

In the case of public K–12 education, we might say that the system is rife with complex challenges and has reached a point of unsustainable systemic gridlock.

### The K–12 Dilemma

The public has lost much of its faith in the ability of public education to provide broad access to quality education and learning for all students. Families with economic means are increasingly opting out of public schools. While there are pockets of high achievement, overall high dropout rates for students and teachers reflect poor system performance. For those students who do attend and complete public K–12 education, the value of their achievement is under debate as many believe it does not meet civic or career expectations. In general, there is growing disrespect of K–12 education as a public institution.

Views of the problem—and suggested solutions—are extremely polarized and politicized. Various stakeholders have responded to the general challenges of “fixing” public education at the K–12 level by initiating and supporting a range of efforts. The Open Economy Toolkit provides a way to evaluate each of these initiatives.

### AN INVENTORY OF CURRENT RESPONSES

**Charter schools.** These schools receive a charter from the state, a public school district, or a designated nonprofit to form a new school outside the immediate governance of the district. With the ability to experiment, charters are driven by parents, teachers, agencies, and communities who want a smaller, safer environment for their children. Many charters focus on specific populations, such as special-needs students, or specific pedagogical approaches.

**National accountability system.** The intention of this solution is to motivate schools to maintain a minimum level of skill and subject-matter achievement. With the “No Child Left Behind Act,” states set standards of achievement, but the federal government tests achievement and enforces compliance, linking funding to school performance. Critics claim that the Act does little to help schools achieve improvements and is more punitive than supportive.

**Smaller schools.** Many research studies demonstrate the effectiveness of small schools, especially for disadvantaged students or those with special needs. The goal is to lower the student caseload for teachers, from 180 to 60 for example, and create more personal relationships among students, teachers, parents, and the larger community. Small schools also create the opportunity for more school-centered self-governance and decision making.

**Schools as community center.** This intervention seeks to provide more integrated service to the whole student and the family—based on findings from the classic *Coleman Report* published in 1966 that demonstrated a link between students' performance and their broader environment. Proponents attempt to integrate the school with the broader community, engaging more people and organizations from the community in the school.

**Financial reform.** Successful lawsuits in several states have directed legislatures to comply with constitutional provisions requiring states to provide “thorough and efficient” or “equitable and adequate” systems of public schools. The first court judgments addressed the inequities in school funding based on diverse property values. More recently, cases have attacked the adequacy of the state and local funds to support a sufficient education.



## STEP 1. FENCES & TRAPS

### REVEAL HIDDEN LONG-TERM COSTS AND BENEFITS

To evaluate the charter schools as a solution to the dilemma of K–12 education, we begin by assessing long-term costs and benefits that may or may not be obvious. In any dilemma, stakeholders generally try to avoid immediate costs and take advantage of near-term gains. This strategy, however, ignores the *fences* and *traps*. Fences occur when short-term costs block access to long-term benefits. Traps occur when short-term benefits blind us to long-term costs.

Step 1 involves using a simple 2x2 matrix: it quickly reveals these important diagonal relationships between short- and long-term costs and benefits. We discover two fences:

- **Short-term costs associated with diverting money from local public schools to privately run charter schools.** Over the long term and across schools, this investment could create a set of small schools autonomous from the public school district in which teachers and principals can exercise more control over decision making and professional skill.
- **Disconnection of the privately chartered schools from the school district, resulting from animosity between public school administrators and those who join charters.** Disconnection is an immediate cost, but in the long term, it

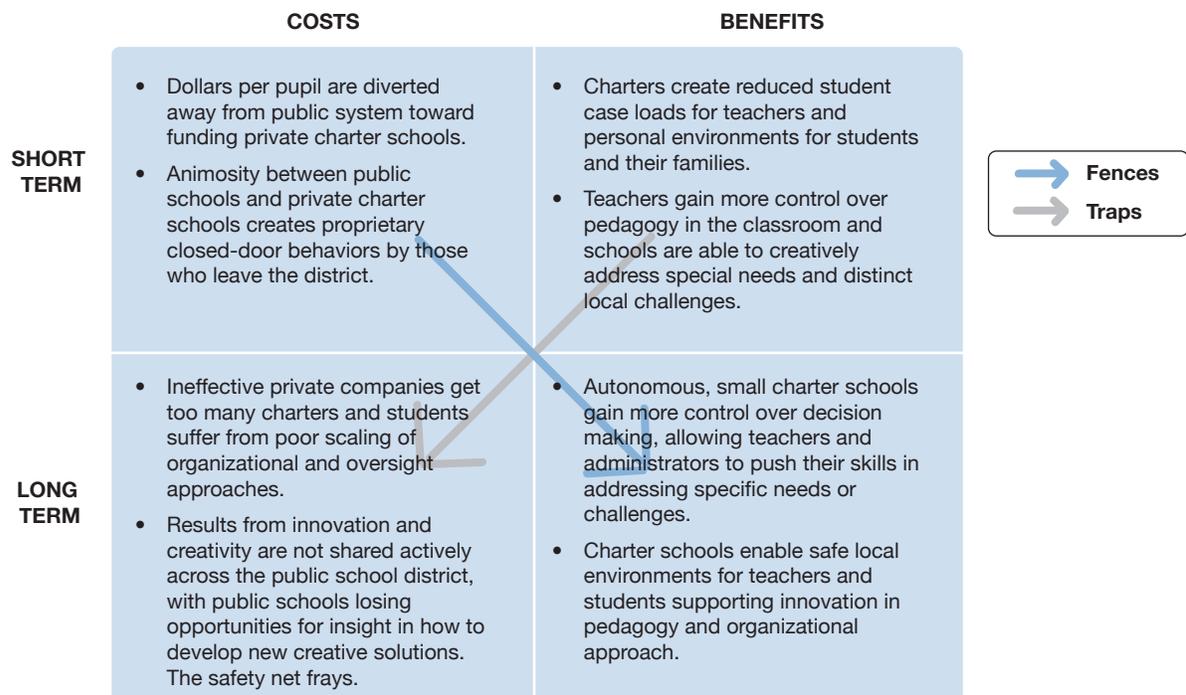
actually creates the potential for more open experimentation in pedagogical and organizational approaches for dealing with special needs or local educational challenges.

We also discover traps that make charters look very appealing in the short term but hide potential long-term costs:

- **Short-term benefits of reduced case loads for teachers and personal environments for students.** If too many charters are granted to reduce case loads and focus on special needs, ineffective companies may become overloaded with charter schools and fail to scale appropriately to maintain quality, oversight, and financial integrity.
- **More pedagogical control for teachers in their classroom.** Relegating special needs and “experiments” to schools disconnected from the district means that local public schools are losing valuable insight about new approaches and innovations.

By taking this longer view of both costs and benefits, we see more clearly the kinds of problems that need solutions. The next step is to consider the stakeholders who may need help getting over these fences and out of these traps.

#### FENCES AND TRAPS IN THE CHARTER SCHOOL STRATEGY





## STEP 2. STAKEHOLDERS & INTERESTS

### RECOGNIZE UNDERAPPRECIATED INTERDEPENDENCIES

The tensions surrounding charter schools emerge from the diverse interests of the stakeholders—parents, teachers, administrators, students, charters school staff and charter company management, and government funders and policy makers. Each of these stakeholders is motivated by distinct wants and values—things they care deeply about. But, as in any social dilemma, there are underappreciated interdependences, and these can point us toward unexplored synergies. So Step 2 helps us map these interdependencies and potential synergies.

First, we map wants and values in a grid. Looking across the grid, we can then see places where these converge or become closely linked. For example, parents, students, and teachers all value per-

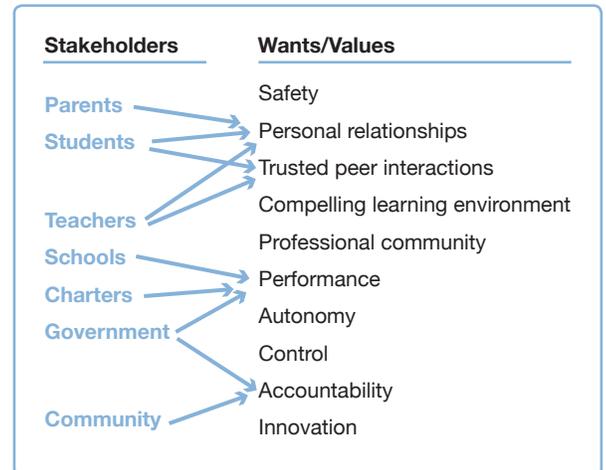
sonal relationships. School administrators, charters, and governments are all concerned about performance. Governments and communities are both looking for accountability. And both teachers and students seek trusted peer-to-peer interactions.

These four areas—personal relationships, trusted peer-to-peer interactions, performance, and accountability—are focal points for innovation and cooperative strategies that will help everyone get past the fences and traps. But the kinds of innovation that will work will depend on the systemic conditions: the drivers and barriers that the institutional world of education poses. Evaluating this context for stakeholder action is the next step.

#### 1 STAKEHOLDER INTERESTS

Stakeholders	Wants	Values
<b>Parents</b>	Safe, personal environment for their children. Well-funded, quality local public schools.	Safety, quality, personal relationships
<b>Students</b>	Compelling learning environment. Personal and trusted relationships with educators.	Stimulation, discovery, peers
<b>Teachers</b>	A supportive teaching environment that respects their profession. A community of learners—students and teachers—not isolation.	Classroom independence, control, creativity, personal relationships, community
<b>Public school administration (principals, superintendents)</b>	Financial flexibility and control over local decision making. Quality performance of teachers and students.	Reliability, consistency, performance, control
<b>Private charters</b>	Ability to attract students and meet their needs. Local control and flexibility to experiment, do things differently.	Autonomy, innovation, financial return, performance
<b>Government agencies</b>	Positive results and quality performance of schools for constituents.	Accountability, performance, data
<b>Communities</b>	A safe, compelling place for all children to learn to become productive community members. A community focal point for learning and civic participation.	Equity, safety, relationships

#### 3 FOCAL POINTS FOR INNOVATION AND COOPERATION





## STEP 3. DRIVERS & BARRIERS

### EVALUATE THE CONTEXT OF STAKEHOLDER ACTION

Stakeholders live and make decisions in an institutional context, not a vacuum. In this context, there will always be drivers and barriers. We can think of these as features of the system that can be tuned to make it more or less easy to resolve basic dilemmas. Step 4 applies a set of seven tuning levers from cooperative theory—they focus our attention on the kinds of drivers and barriers that are most likely to be important in an open economy where cooperative strategies are often the key to success.

The seven levers are: structure, rules, resources, thresholds, feedback, memory, and identity. Structure, rules, and resources play a prominent role in shaping the tensions related to charter schools, which are creating more adapt-

able local structures and governance frameworks to deal with local needs. These, in turn, appeal to teachers' desires for professional creativity and control, and to families' and communities' concerns that the specific needs of their children are met. However, charter schools suffer from the lack of systemic feedback and shared identity, and the prevalence of competitive resource strategies prevents the public school districts from gaining new knowledge and insight that could address shared interests related to performance, innovation, and accountability.

These insights set the stage for action: designing cooperative solutions in which everyone is better off. This is the next step.

#### 4 DRIVERS AND BARRIERS IN THE CONTEXT OF PUBLIC EDUCATION

<b>STRUCTURE</b>	The public education system is hierarchically structured and slow to change. Decision making and authority originate from the top and trickle down. Schools and districts have decreasing latitude to experiment and initiate change, with little reward. Schools receiving a charter move outside the hierarchy, gaining a degree of autonomy and self-determination not widely found in local public schools.
<b>RULES</b>	Rules are created and enforced from the top, with little bottom-up legitimation or ability to influence their modification or interpretation. Rules governing local schools are externally imposed by state and federal policy, providing local schools with little latitude to experiment and change rules to support new approaches, such as how funds, staff, or even curricula and pedagogical approaches can be deployed. For many, the appeal of charters is the ability to work under different organizing principles and rules of interaction.
<b>RESOURCES</b>	Resources tend to be allocated based on legislated notions of equity and are treated as proprietary or private resources. Strategies to manage and grow resources (funding, knowledge, professional skills) tend to be more competitive than cooperative. Knowledge resources developed in charter schools, for example, are not shared resources within the district. There is little sense of common-pool goods (those resources that would benefit both public and charter schools). Nor are there shared goals that guide the cooperation of charter schools and local public schools.
<b>THRESHOLDS</b>	Data may be tracked for specific thresholds—such as effective group size for learning and management, attrition rate of school population due to dropouts, private/parochial/home schools, percent of AFDC or ESL families—but this information is not linked to visible triggers for action. Charters could be interpreted as one way of dealing with the negative consequences of crossing specific thresholds. Visible triggers can often motivate action to avoid or encourage crossing a threshold.
<b>FEEDBACK</b>	There is little systemic feedback in public education, other than quantitative statistics about performance/achievement and financial measures. Most qualitative feedback about learning and professional development is local within a school or district. New knowledge from innovations or experiments conducted at charters does not flow across the system well, but remains within local geographic or pedagogical communities.
<b>MEMORY</b>	In the context of public schools, institutional memory could be a barrier to developing new approaches to solving both old and new problems. In the form of legacy or bureaucracy, institutional memory may be holding back innovations. Charter schools could be seen as a way of breaking through the hold of rigid institutional memory by creating new local histories and memories.
<b>IDENTITY</b>	District identity is generally weak. The strongest sense of affiliation often exists at the school level, though it may vary depending on position (teacher vs. administrator). Charter schools lose “membership” and affiliation in any meaningful way with the district, decreasing the likelihood for cooperation and sharing. District identity is weak and may not be a powerful motivator for cooperative learning and innovation with charter schools.



## STEP 4. PRINCIPLES & PLATFORMS

### DESIGN FOR OPENNESS

Now that we're ready to begin looking for solutions, design principles from the open economy can provide guidelines and potential insights. Step 4 centers on a core set of design principles. If we apply these principles to the fences and traps we identified in Step 1, we find ourselves asking new kinds of questions about the design of educational systems.

For example, let's consider the lack of feedback and learning from charter school innovations. Parents and teachers may want charters for their pedagogical flexibility and school autonomy, yet their local districts (and the larger system) don't get anything back. Current institutional structure and rules fail to capture learning from charter schools and prevent teachers and administrators from achieving the level of control and autonomy to develop their own solutions to local problems.

A few key design components that may provide alternative solutions to these tensions are peer-to-peer design, distributed authority, common-pool resources, and group-aligned self-interest. We can begin by asking questions about what these solutions might look like, given the stakeholder interests. Ultimately, we would develop these into a set of alternative scenarios, but for now, we'll just pose the questions before going on to consider the next step of building concrete strategies that speak to the incentives of each of the stakeholders.

## 5 KEY DESIGN PRINCIPLES FROM THE OPEN ECONOMY

**PEER-TO-PEER DESIGN** leverages diverse and distributed expertise through carefully designed aggregation processes.

### What to focus on:

- Who are contributors?
- What can they contribute?
- What are the processes and platforms (social and technological) for contributing?
- How are contributions filtered, aggregated, and integrated?

**Example:** If stakeholders of charter schools were all considered peer contributors, what does the process of aggregation that would provide benefits to all those touched by the creation of charter schools look like? How can the experiments and new approaches of charter schools be aggregated to produce a resource that would contribute to all local public schools?

**DISTRIBUTED AUTHORITY** pushes rule making, monitoring, and sanctioning out to the periphery of a network.

### What to focus on:

- What decisions can be made or actions taken at the edges of the network?
- How can those decisions and actions be made visible?
- How do decisions and actions get evaluated?
- What are the individual and group consequences for poor decisions and actions?

**Example:** What would a set of rules look like that would support teachers and principals of local and charter schools in developing strategies for gaining the long-term benefits of charter schools and avoiding the long-term costs? What kinds of distributed monitoring and sanctioning would be meaningful to create a common-pool resource?

**COMMON-POOL RESOURCES** provide diverse sources of value from basic tangible and intangible goods that a group jointly sustains.

### What to focus on:

- What resources are some stakeholders in the group already creating?
- What value would those resources have for other stakeholders?
- What is the value of sharing those resources?
- What are the processes and tools for creating, using, and maintaining the resources?

**Example:** What common-pool resource (knowledge, innovation, skill development, access to funding, reputation) could be created that would serve both local public schools and charter schools? What type of interactions between local public schools and charter schools would support the creation of a common-pool resource?

**GROUP-ALIGNED SELF-INTEREST** enables individuals and groups to act in their own best interest and contribute to system-wide benefit.

### What to focus on:

- What kinds of individual actions might create value for the whole?
- What individual benefits derive from contributing to the whole?
- What value do free riders add to the system?
- How can hidden value be revealed?

**Example:** Where are there synergies in self-interest that could be points of cooperation among stakeholders of local public schools and private charter schools? How can interactions and rules be structured to support individual interest and collective benefit? How does the local public school district gain from private charter schools?



## STEP 5. INCENTIVES & STRATEGIES

### CREATE STRATEGIC INCENTIVES FOR COOPERATION

New design principles and platforms require buy-in and often demand behavior change among stakeholders. Designing successful strategies thus requires us to map these design principles against the incentive profiles of the participants.

Step 5—a set of three incentive profiles—is designed to help us with this task. Each of these incentive structures may be linked to specific open-economy strategies based on the tuning levers we introduced in Step 3. Without changing the actual motivations of any of the players, we restructure the system to recover lost value. For example:

- By opening a new feedback channel between parents who opt out of the public schools and the district administration, we capture information that could improve the system for those who remain and ultimately lead to greater retention.

- By setting up a platform for district-wide fund-raising competitions among PTAs, we redraw the boundaries of group identity and raise the overall funding for the entire district.
- By using reputation and rating systems to encourage a shared innovation repository across public and charter schools, we create a new resource not only of innovations but of social capital in the community.

This framework drives the design of open-economy solutions to specific strategies for specific groups, with well-defined incentives appropriate to the participants. Ultimately, these strategies should create new value throughout the entire system, as revealed by the final step in the process.

#### 6 INCENTIVE PROFILES FOR STRATEGIC DESIGN

	INDIVIDUALS	GROUPS	INSTITUTIONS
<b>INDIVIDUALIST:</b> self-interest maximizer	<p><b>Focus:</b> Parents want the best for their kids regardless of community</p> <p><b>Strategy:</b> Create a feedback channel to districts for exiting parents</p>		<p><b>Focus:</b> Public and charter schools are focused on meeting mandated performance standards to access federal funding</p> <p><b>Strategy:</b> Create an open-source standards and testing platform to engage the community in defining and measuring broader performance standards</p>
<b>COMPETITOR:</b> relative maximizer		<p><b>Focus:</b> PTA groups focus their concern on their own school community, developing ways to attract grant money and link to the larger community</p> <p><b>Strategy:</b> Develop district-wide fundraising competitions and award points to people who share fundraising tips</p>	<p><b>Focus:</b> Private charters want to attract funding and the best teachers to their schools</p> <p><b>Strategy:</b> Develop a district-wide innovation forum with reputation and rating system, with annual personal awards for contributors</p>
<b>COOPERATOR:</b> joint-outcome maximizer		<p><b>Focus:</b> Community groups (school boards) may take into account joint interests and help bridge across schools and other boundaries</p> <p><b>Strategy:</b> Set up participatory planning processes that widen participation in school board decisions and attract innovative solutions</p>	



## STEP 6. NEW PATTERNS & INSIGHTS

### TAP INTO THE NEW ECOLOGY

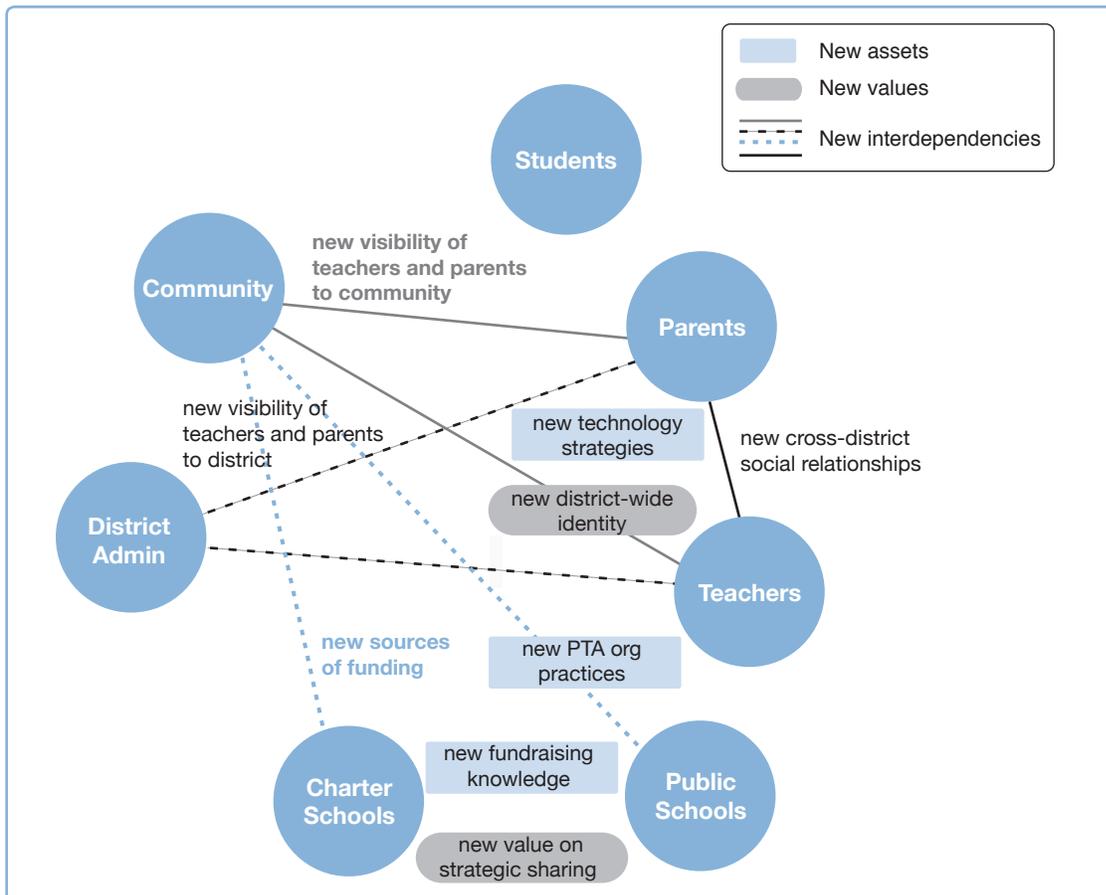
New open-economy strategies should ultimately lead to new value in the system—in this case, the educational system. Step 6 uncovers this new value by creating a map of the new ecology. This map will show us new interdependencies, new assets, and new values.

For example, in the case of our cross-district competitive PTA fundraising platform, we might find new social relationships between parents and teachers and a new visibility of parents and teachers to the community and the district administration. We would also expect to find new assets, such as new organizational practices among PTAs, new technology strategies for outreach, and new knowledge commons around fundraising

strategies and practices. Finally, we might also find a shift in values to include a broader district-wide identity in some activities and a norm around sharing between charter and public schools.

This new value is regenerative—that is, it suggests additional ways to create new value in the system. For example, the new visibility of teachers and parents in the district and community may create new opportunities to engage them in other civic forums or in leadership of the district. We can now return to the beginning of our cycle of diagnosis and design to figure out how to design additional platforms for generating yet more value in the system.

### 7 THE ECOLOGY OF NEW INTERDEPENDENCIES, ASSETS, AND VALUES



Source: Institute for the Future

For more details about strategic planning in an open economy, see “Methodology: The Open Economy Toolkit.” For more information about how to apply the toolkit to strategic planning challenges in your organization, please contact **Andrea Saveri** (asaveri@iff.org).