Scaling Up the Big Picture

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Challenges and Strategies

Introduction

We call our project a study of scaling up the "Big Picture." The term refers to a Providence-based non-profit organization called the Big Picture Company, to the schools it is helping to develop in various parts of the United States with support from the Bill and Melinda Gates Foundation, and also to its ambition to have influence beyond these schools. Originally incubated by the Annenberg Institute at Brown University, the Big Picture Company (hereafter referred to as BP) is dedicated to making American education learner-focused and community-based. Its seminal project was the design of a small state-funded high school in Providence, Rhode Island - the Metropolitan Regional Career and Technical Center. The first "Met" site opened in 1996 in a corridor of the State Education Department building, and offered 110 students a personally tailored and workplace-focused curriculum. Today, there are six Met sites in Providence – four of them sharing a campus in the heart of one of the city's poorest neighborhoods. BP inspired and oversaw the design and construction of this campus – down to the contours and detail of its furniture. Now it is overseeing and collaborating in the development of other Big Picture Schools in seven different communities across the United States. Four schools have just concluded their first year, while six more will open in September. Meanwhile, BP recently received a new grant from the Gates Foundation to open 44 new schools over the course of the next five years. Clearly, BP is still near the start of its scaling up, though it is at a crucial point in terms of defining the task and of organizing for it.

This is the second of four planned essays to track the course of the scaling up of Big Picture Schools. By means of this tracking, we hope to illuminate issues related to scaling up new innovative schools generally, as well as other educational innovations. Essay 1, entitled "The Difference Difference Makes" (February 2003) explored the characteristics and qualities of the Big Picture School design, noting its contrast with conventional American high school design. The essay also raised some strategic questions. How can a vision of high schooling as different from the norm as BP's vision achieve scale as well as depth in each site? How much standardization does scale demand? How much adaptation to local context? How much is depth dependent on fidelity, and how much on local invention?

We think these questions are relevant beyond the Big Picture Company, and even beyond the dozens of enterprises now scaling up other small high school designs. They are among the most important questions facing any enterprise scaling up a substantially innovative design. BP provides a good context in which to study the questions, but other contexts would do as well – including contexts beyond education, as we will frequently point out in this essay. Even jazz comes to mind, as one BP staff member recently claimed. He drew an analogy between a key challenge in the history of this art form, and a challenge facing BP today:

> How do you keep jazz *jazz* and allow for growth? How do you honor forms, instrumentation, style virtuosity, and deep down funk of the past yet not inhibit or constrain the perspective of newer artists? . . . We have the same challenge here at Big Picture. Educating one student at a time requires great creativity and great improvisation, but we can't start from scratch in each of the new schools. . . . Deciding what should be common, and what should be individual – these are the big challenges in the next two years.

This is, indeed, one of the big challenges facing BP. We call it the challenge of managing the dilemma of fidelity and adaptation. And BP faces other big challenges too. One is the challenge of finding, growing, and honing a local expertise capable of smart improvisation. Not everyone can play jazz – and no one can without experiencing some form of mentorship. There is also the related but different challenge of instilling a sense of shared ownership – that each local developer might care as much about the overall BP vision as about the fate of his or her own school. The Modern Jazz Quartet played in concert halls rather than smoky clubs, but they still played jazz. Then there are the three infrastructure challenges. They arise when sites multiply – when scale is approached. The first has to do with communicating across a diversifying and increasingly complex environment. What happens when there are multiple styles of jazz in play, multiple environments for playing it, multiple artists, multiple record labels, multiple promoters? The second has to do with exploiting communication as a source of overall organizational improvement: the challenge of learning from experience, of the feedback loop. How do jazz players learn from jazz players? How does the whole ecology of jazz evolve? And the third is the challenge of finding the resources to build and sustain whatever infrastructure makes sense. How do people make money in jazz such that jazz grows rather than fixates and dies?

In this essay, we examine five challenges of scaling up BP's innovative high school design – saving the resource challenge for a later essay. We also explore a set of strategies that BP is currently using to deal with these challenges.

Five Challenges

- managing the dilemma of fidelity and adaptation
- finding, growing, and honing local expertise
- instilling shared ownership
- communicating in a diversifying, complex environment
- learning from experience

The essay foregrounds the strategies. This is to acknowledge that in the fast-paced world of scaling up new school designs, action takes precedence. Indeed, perceptually, the challenges emerge from the action. In mucking around in the swamp of practice, as Donald Schon (1983) put it, one gets clearer about the issues. Or at least one does if one reflects on the mucking around. It helps too, as Schon later put it, if one is willing to ask outsiders to come into the swamp, to observe and report on the mucking around (Schon and McDonald, 1998). This is our function as researchers and essayists.

Even if the challenges of scaling up only become clear later, the strategies emerge quickly. They have to, because the work of scaling up suddenly rushes in. Thus the eight scaling-up strategies that BP has devised and is using now are not the product of pilot research. There are no resources to support pilot research, nor is it clear that pilot research would prove worthwhile even if there were resources to support it.[1] The BP scaling-up strategies are the product of just-in-time planning and invention, of intuition honed by staff members' diverse experience in other settings, and of the habitual practice in BP of drawing analogies to organizational domains other than education. Yet they constitute an impressive toolkit.

Of course, the strategies will be only as good in the end as their power to deal successfully with the real challenges. Indeed, the theme of this essay concerns the efforts of BP to alter the strategies – often in dramatic ways – to fit emerging perceptions of the challenges.

Ultimately, the aim of the essay is to use the BP context to further understanding of the nature and predictability of the challenges, as of issues that arise in dealing with them. This is in keeping with our intention to use BP scaling up as a lens on the scaling-up phenomenon in education generally.[2]

In the first part of the essay, co-authored by the research team at New York University, we examine the eight strategies in use.[3] That is, we consider how BP is using them to deal with the five challenges, as these challenges present themselves in the development of BP's three TYBO 1 schools (which opened in the fall of 2002), and its TYBO 2 schools (planned to open in the fall of 2003). "TYBO" stands for "the year before opening," and the prominence of the phrase in the BP lexicon signifies the emphasis that BP has tended to place on preparation.[4] It is an emphasis that may be yielding, however, as BP learns from its first experiences.

Eight Strategies

- Articulation
- Differentiation
- Imagery
- Transparency
- Enculturation
- Training
- Coaching
- Building and Networking Communities of Practice

We explore each of the strategies in turn – as well as issues arising from their use- drawing upon data from observations, interviews, and document reviews. We define each strategy, sometimes borrowing language from Essay 1, and we frequently refer also to the use of the strategy in domains other than education. In drawing attention to these other domains – often ones dramatically different from education in moral, political, and economic terms – we do not mean to discount the significance of these differences. We mean merely to encourage educational organizations to look beyond the familiar for ideas about how to scale up effectively. This seems especially important where what is being scaled up is different from the norm. One of the Big Picture Company's greatest assets, we think, is its capacity to do this. The reference to jazz we quoted above is hardly anomalous. In any conversation at BP about BP, some analogies will surface - to the arts, to manufacturing, to service industries, and so on. In particular, the Co-Directors of BP – Dennis Littky and Elliot

Washor – are avid collectors and suppliers of such analogies. Here we merely follow their lead.

Although we think the distinctions we draw among the strategies are useful, it is important to note that in practice they cannot always be easily distinguished. For example, there is often a fine line at best between enculturation and training, as between training and coaching. Moreover, though the purpose of the strategies is to manage the challenges, any particular use of a strategy may aim to manage more than one challenge simultaneously.

In the second part of the essay, authored principally by Samantha Broun of the Big Picture Company, we revisit a number of the strategies (and implicitly the challenges they address), but through a very different lens. This time we see how BP's youth consultants think about them and use them. The youth consultants are Met students serving in the role of "Mexperts," learning a variety of life skills while sharing with others their intimate knowledge of a Big Picture School. We feature their work here not only because it offers a valuable perspective on the strategies and the challenges, but also because it illuminates a central element of the BP vision – the power of trusting in what youth know and can do.

1.

Strategies in Use

To begin this section of the essay, we offer a thumbnail sketch of the contexts in which we studied the eight strategies in use. In the process, we mention some crucial features of the Big Picture School design:

- Advisories in lieu of classes
- Individualized, and student-directed learning plans, guided by Big Picture Learning Goals, and a student's "passion"
- Individualized, project-based learning
- In-school Community-building activities such as "Pick-Me-Ups"
- Mentored, community-based learning experiences (called Learning Through Internships – or LTIs), constituting a substantial portion of the student's overall program
- Public exhibitions of learning
- Family engagement in the development of learning plans and the evaluation of progress[5]

The Middleton Schools. Middleton is located in a suburb of a large city in the Northwest. It is situated along a stretch of outdoor malls filled with stores like Target and Pier 1 Imports, and with chain restaurants and movie theatres. Across the street from the school is an REI store, a Kinko's printer, a Christian bookstore, and an all-natural food store. The Middleton building is new, and striking in its modern, open design. It

houses two schools: Hope and Lakeside. They form two sides of a *V* with shared space at the point that holds a school store, a kitchen, the offices of the principal and other staff, an entrance and a waiting area. The ceilings are high, barn-like, with beams and large stainless steel pipes exposed. Each school has a "Great Room" where "Pick Me Ups" are held, and lunches served. The schools also have small learning team areas divided from each other by short cubicle walls that fail to contain noise. Students have the opportunity for physical privacy in small offices next to the learning areas.

The school is populated by mostly lower middle-class students: a mix of whites, Latinos, Asians, and African Americans. Before its conversion to a Big Picture School, Middleton had a "terrible" reputation, as one staff member put it. A student told us, however, that Middleton students have been involved in more and more speaking events since the conversion, and that people are hearing about a "new" Middleton. Nonetheless, she added, some people still assume that "you're having a baby" if you've chosen to attend this school.

Middleton is unusual in the BP scale-up family because it is a conversion school. Before conversion, the principal and two staff members spent part of a year traveling around the country looking at different school models and ultimately opted to implement the BP design. Three of the staff members from the previous school chose to stay on and others transferred out. Many advisors spoke to us of the "difficulties" in the conversion process, said that buy-in has been slow to build and that the first year was "disastrous." Most, however, believe that this past year - the second using the BP design, but first as an official BP school - has marked a vast improvement.

Clemente. Driving the winding roads to Clemente High School, one passes California farmland, dotted with the thick figures of cows chewing grass, and with lithe images of horses. Over several speed bumps and past a large public high school, one reaches the front of Clemente. Outside stand some copper-red rocks and a group of blue picnic tables set beneath a canopy. The new red brick building sits beside a 'portable' (trailer) that will house the school's offices next year.

Just inside the building are the secretary's desk and a large carpeted room, filled with round tables and plastic blue chairs. From here, one can see into the advisories, and both the principal's office and the LTI Coordinator's office through a wall of windows. The building resembles the Peace Street Campus of the Met School in Providence. This is because the Clemente principal began the design process of her new school with an image of the Peace Street campus in mind.

The main room has bookshelves filled with games: Twister, Connect Four, Chess, and Checkers. There are books filling the shelves, too: *The Lord of the Rings, The Practice, Nineteen Eighty-four, and A Wrinkle in Time*. The walls are posted with pictures of students at their LTIs, a list of the Learning Goals, and colorful decorations. Similarly, both advisors' offices (with windows to their classrooms) are filled with posters; there is little free wall space available. The posters are varied, featuring movies,

political figures, musicians, and music groups. On each office wall hangs a medal from the BP "Big Bang," summer of 2002.

The student population is primarily white and middle class. There are approximately an equal number of girls and boys, and most of them live within 40 minutes of this rural school. The principal's interest in beginning the school originated with her reading about the Met. She related well to BP's "one kid at a time" philosophy. She contacted BP Co-Director Dennis Littky, who was reticent because of the distance from Providence. However, he told her that he would soon be traveling to her part of the West Coast, and that if she were willing to meet him at the airport, he would speak to her about the Met, the BP philosophy, and the possibility of her opening a BP school. She showed up at the airport with the district superintendent - a move that made it clear to Littky that she had local support and a strong intention.

Washburn. Located in a medium-sized West Coast city, the Washburn School is situated on a local community college campus, set back upon a sprawling lawn. Ducks skim the surface of a nearby lake, yellow cat tail reeds stretch into the air. Students walk past tennis courts and sit on stairs, talking. There are concrete benches and flower gardens outside Washburn, but inside there are only two classrooms and an office. This tiny new school shares a courtyard with other classrooms used primarily by the college's ESL students.

The office has a large wooden desk, a six-sided table, a vintage library card catalogue holding various items, a table with fax machine, and a copy machine. The walls have pictures of students, as well as a colorful canvas 'Day of the Dead' skeleton painting done by Washburn students. Calendars are everywhere in the office, filled with scrawled planning notes and deadlines. The advisory classrooms have windows that fill one entire wall of the room, facing the courtyard. The other walls are decorated: a world map, Learning Goals, musicians, more calendars with schedules for exhibitions and advisor meetings.

The school has fewer than 30 students now, most of whom are African-American and Latino. There are several non-native English speakers, including students of Asian and African descent. There are two advisories at the school, with the principal serving also as an advisor. The principal and the other advisor knew each other prior to beginning their work at Washburn. The latter believes that their close relationship and trust enabled them to overcome initial struggles associated with beginning such a different school. "At the beginning, we didn't know what we were doing," he told us. "It was day-by-day, and fly-by-the-seat-of-our-pants. Each day we would meet after school and say, 'What are we doing tomorrow?'"

TYBO 2. Several Big Picture Schools are scheduled to open in the fall of 2003. These include one school located in a mid-sized West-Coast city – not far from two existing Big Picture Schools; one located in a mountain-states city; two located in a large Midwestern city; and two located within different neighborhoods of yet another large Midwestern city.

Strategy 1: Articulation:

In Essay 1, we wrote that *articulation* involves clarifying what a Big Picture School stands for, what it consists of, and how it works. The genres of articulation include argument (for example, about why "one student at a time" - BP's emblematic phrase - is a sensible way to arrange a high school); description (for example, of the Met's curriculum, or of its outcome statistics – such as the percentage of its graduates who go on to college); and story (for example, of one student's experience in an LTI). Its forms include print, speech, one-on-one and small-group Q&A, video, slide presentations, and the mixed media of BP Online – a web-based curriculum and communications vehicle.

In a very different context, articulation is what Blue Man Group decided to do when – after 1000 off-off-Broadway performances by the same three performance artists - one of these "Blue Men" cut his hand too severely to perform, necessitating the sudden insertion of an understudy. What is Blue Man Group? Three performers, painted "smurf" blue, 'create art' by drumming on pipes, throwing marshmallows, or spitting a splatter of paint on a canvas. They never speak or smile, yet their art is engaging and has developed a considerable following, fifteen years after three friends first started "tinkering." According to a recent article in *Fortune Small Business* – one that Dennis Littky called our attention to - "Blue Man is a powerful case study in how to grow a brand without losing focus. We've all heard stories about companies that start off like a rocket – then crash and burn because they didn't stay in control of their original vision" (Walker, 2003, 18 D). Blue Man Group got a piece of advice from Penn Jilette (half of the Penn & Teller team) early in their act – advice that didn't resonate until the incident of the cut hand. Jilette said, "Oh, my God! You guys can do what Teller and I can never do! You can clone yourselves!"(18 D). The reason, of course, is because they paint themselves blue. All that any "Blue Man" needs now is his (or her) local talent plus blue face paint, and a 132-page operating manual that was written "when the three founders locked themselves in an apartment with one of their creative directors...and a tape recorder." The manual is the "story of the show, step by step, but from the point of view of the Blue Men . . . Writing it forced the founders to articulate ideas that had always simply been understood among them"(18 F). No better definition exists of the articulation strategy.

One BP staff member puts it in BP terms:

> When the Met first started, the staff was more entrepreneurial. We were basically making it up as we went along and we each had different forms and ideas. Dennis and Elliot [the BP Co-Directors and co-founders] would just say "This is good," and "This is bad." "Do this," and "Don't do that." The idea behind the materials was that people were unnecessarily reinventing the wheel.

"The materials" are the extensive set of curriculum tools available in either a case of "red binders," or at an internal website called BP Online. In bulk and specificity, the materials rival the Edison Project's design book – though, in other respects, they are different. For example, they include an unusual array of stories of scaling up; data concerning graduation rates and the like, samples of student work, including portfolios; weekly calendars and daily announcements (on line); videos and photos; forums and chat rooms (on line); and either pull-out or downloadable forms (for example, a learning plan cover sheet). And there are materials not just for principals and advisors, but for students, and even for mentors and parents (indeed, the original source of funding for the development of BP Online aimed to support parent involvement).

The materials seem to deal well with two challenges at once. First, they structure fidelity. Using them, one comes to take as givens the features of the BP design: advisories, learning plans, parent engagement, and so on. Within these givens, one then searches for useable ideas, and finds them readily. As one BP staff member put it, "People are using the materials because they cut to the chase." At the same time, however, they invite improvisation within the compass of the given features of design. Consider in this regard the substance as well as the tone of this small excerpt of advice for advisors – and its mix of generality and specificity:

- How you run your advisory is your own decision. Your advisory may need extra help in team building, while another advisor's group immediately bonds. Or, your group may be really excited about outside activities, while another advisory prefers more at-school projects. As you get to know your students, you will have a better idea of how to plan the advisory time.
- Talk with other advisors about their advisory schedules and what activities are working well for them. You may want to combine advisories on occasion and do some getting-to-know-you activities.
- Before students are involved in LTI projects, you will need to do more planning to help structure the days. Having some ongoing group projects and concrete activities for the first few months will help your students feel productive while they look for LTIs.
- Go to Big Picture Online and chat with advisors who have been doing this for awhile. They will have some great ideas for involving students, problem solving, and activities.
- Involve the students in the decision making and planning. The more investment they have in advisory, the more active and enthusiastic they will be.
- Have the students make a mission statement for your advisory.
- Build a large monthly/weekly calendar together to schedule work and activities.
- Be on the lookout for students who need encouragement, and try to get them involved with other students on an individual basis. Teaming them with buddies who are accepting and outgoing may help the excluded student be more involved and comfortable.

The "materials" derive principally from eight years of design sketching by BP staff, and seven years of practice by Met advisors and principals. In a recent interview, Dennis Littky recalled his efforts to coax the Met staff to document this practice. In the process, he distinguished articulation as a strategy from the more informal and localized habits of a community of practice. "When we were small," he said, "we might be sitting at the bar, and I might say, 'I used this great story yesterday,' and so you'll grab it from me. That just happened. But now we have such a bigger variety of teacher skills." In preparation for scaling up, he continued, "I knew we had to develop materials, but I couldn't get people [at the Met] to think about it at all." So, he explained, "I started this thing one year. People fought me like crazy on this. I collected everything they did. First I tried boxes by the xerox machine – every time you do a ditto, save it – but that didn't work. You need someone on the floor standing there, saying, C'mon, put it in – until habits develop."

Littky put what he got from such coaxing into "a giant book called 'The Uncurriculum'." This was the precursor of the materials, as he describes their development. "Most of the people [at the Met] didn't use it," he told us, " but some did. Some used it every day. I mean, why would you not use it? But I had all these smart people who wanted to do their own stuff."

Today, by most accounts, the BP curriculum materials are still underused at the Met, but we found considerable use of them in Middleton, Clemente, and Washburn. And we found considerable familiarity with them among the principals of the TYBO 2 schools. Among the latter too, we found considerable familiarity with another set of BP articulation materials – what we might call collectively the Big Picture talking points: rationales for "one student at a time," statistics from the Met's experience, justifications for community-focused learning, and so on. The training of new Big Picture principals has involved explicit instruction in how to talk about the Big Picture enterprise, its values, and its high school design. For example, in a session at the 2002 Big Bang – the annual training and enculturation event in Rhode Island for all Big Picture principals and staff – the new principals got advice from a public relations expert. She told them that stories work well to convey messages, then modeled this kind of storytelling, and had the principals practice telling stories from the Met and from their own experience. "Be proactive," she stressed, "not defensive."

The principals have also been encouraged continually as part of their training and on-site coaching to practice articulation in real contexts. We observed one new principal – fresh from a community meeting - notice the nearby office of the Latino Health Research Training and Policy Center. Sensing an opportunity, he entered the office and asked to speak with the director. He introduced himself and explained that he was starting a new high school in the neighborhood – one meant to serve in a personalized way the neighborhood's currently under-served youth. He emphasized the school's reliance on community-based internships, and he cited statistics from the Met - graduation rates and college retention rates. The director seemed receptive, responding that the staff had just been thinking about how they'd like to get high school student interns involved in their work.

In less than ten minutes, he managed to create a relationship with the director of this neighborhood organization, and to recruit a possible internship site for one or more of his students – all this many months before the students themselves were recruited. Had he followed a conscious script in the exchange? "When you only have a few minutes," he explained, Dennis Littky had told him to emphasize community-based learning – the "LTIs" – and to point to the success of the Providence schools. Littky had also told him and all the new principals at one of their training sessions in Providence "to talk to one or two people every day about LTIs."

The principals of prospective Big Picture Schools did not lack for opportunities to practice articulation in their "year before opening." One, recruiting students and their parents, found himself fielding difficult questions. A parent asked, "How will students be prepared for college?" The principal explained the "rigorous" learning plan central to the Big Picture design, and the "hands-on experiences" that students would have. He stressed that "with the small size, students will get individual attention from people who care about equipping them to learn." The parent seemed skeptical and asked, "OK, compare one kid at your school and one kid at another. The kid at the other school will have had four years of Math, four years of English, four years of Science. Why would a college choose your kid over the other?" The principal countered quickly with an example from the Met – of a student accepted into Brown, an Ivy League (and Providence-based) school, on the basis of the student's portfolio documenting rich learning experiences. He added that one of his high priorities as principal would be to develop relationships with local colleges and universities. The parent pressed on – this time with questions about the Board of Education: "They have rules about the amount of credit hours and classes. Are you going to change the rules?" The principal responded, "Well, yes," whereupon the parent called the school an "experiment," and parted unconvinced of its value. Reflecting on the exchange later, the principal acknowledged, "I didn't have a good response for that man. I'll need to work on that, because I know that lots of other parents will say the same thing."

It is in the year before opening - when principals are most likely to be building allies in the community, and working to find parents and staff who are willing to take risks - that the need for eloquent articulation is at its highest. But it may also be – for want of concrete experience – when the principals' articulation powers are still weak. How may an organization scaling up cope with this aspect of the challenge of growing and honing local expertise? BP smartly relies to some extent on materials that do their own articulation: explanatory videos of high quality, an attractive website and attractive brochures, an engaging book about the Met by Eliot Levine (2002). Thus new principals – and eventually new staff, parents, and students - "borrow" articulation skills even as they themselves are learning about their new school and its design.

Still, principals and others have to do their own talking too. For this reason, such training and coaching as mentioned above seems crucial. Evidently important too is providing good "talking point" material – good not only in terms of its selling qualities, but in terms of its accuracy and relevance to common concerns. For example, the

statistics the principals cite have to be up to date and otherwise trustworthy, and available in some medium (like a website) that parents and others – including education officials and local journalists – can check out on their own. Thus the success of articulation as a strategy depends ultimately on meeting the challenge of communicating well across a complex and rapidly diversifying context – on getting accurate and timely information about the experiences and concerns of many sites, and on returning this information to the sites in forms they can use to improve the experiences and assuage the concerns. This is a considerable challenge – one that necessarily draws precious resources away from efforts that seem more pressing.

Strategy 2: Differentiation (a.k.a. "Distinguishability")

In Essay 1, we called this second strategy *differentiation*, but within BP circles it is better known as "distinguishability." This is Co-Director Elliot Washor's phrase, and he is the strategy's special champion. In what follows, we use both terms – differentiation to signify the generic strategy, and distinguishability to signify an application of the strategy in use at BP. To understand how the strategy by any name works, it helps to keep the first challenge of scaling up in mind – the one about managing the dilemma of fidelity and adaptation. The reason this challenge is a *dilemma* rather than, for example, an obstacle to be overcome, is because there is no overcoming it. One must learn to live with imperfect resolution, and also with variable resolution (that is, that a workable resolution today may not be workable tomorrow, and one that is workable here may not be workable there).

How then does an organization plan? How does it know – and articulate – which of its principles and practices are inviolable and which not? Or if nothing is to be inviolable in any permanent sense, how does the organization know at any point how to call an innovation good – to give it in BP parlance a "nod of cool" – or to call it unacceptable? The answer, Washor suggests, comes from talking it through continually – in various configurations of people, and with a dedication to what he calls the principle of "and/both." For Washor, this principle guides BP's development at multiple levels. He says that it presses BP to attend to *both* its systems' development *and* its people's development; its breadth *and* its depth; its scale *and* its intimacy; and its policy *and* its practice. It is the latter duality that especially comes into play during differentiation, as we explain below.

Like all the other scaling-up strategies we discuss in this essay, differentiation is widely practiced beyond BP. For example, Dennis Littky became interested in Blue Man Group not just because it articulated its previously tacit knowledge – committing it to a manual; but also because the Group thereby found a means of regularly distinguishing itself from "not-itself." It was the last lines of the *Small Business Fortune* article about Blue Man Group that especially caught Littky's attention:

> With each new project. . . they confront the same decisions they've faced since the beginning. As Wink [one of the three original Blue Men] says, "We're gonna

have to go through each idea and say, 'Okay, that's all good and well, that's a nice thought – but is it Blue Man?'" (Walker, 2003, 18H).

It is this "going through" that constitutes differentiation: the systematic process of comparing particular practices to an enduring, though also paradoxically evolving vision.

Starbucks, with its green and white siren smiling from storefronts across the world, uses differentiation to cope with the continually challenging dilemma of fidelity and adaptation. CEO Howard Schultz tells the story in his book, *Pour Your Heart Into It: How Starbucks Built a Company One Cup at a Time* (Schultz and Yang, 1997). On some points, Starbucks stood firm during its great expansion beginning in the 1980's. It would not entrust its quality to franchises. It would not use artificially flavored beans. It would not sell in supermarkets where beans are poured into clear plastic bins and then go stale. Schultz says he began with a long list of things Starbucks would "never do," but gradually realized that some prevailing practices could be altered – and, indeed, should be altered. What needed to remain unaltered were the core values. It was partially by means of differentiation analysis that these core values became clearer. Adaptation for Starbucks came in several forms. Outlets began offering nonfat milk in 1989; customers can have syrups mixed into their espresso drinks; and Starbucks has used its coffee to flavor ice creams and beer and icy blended drinks (such as the Frappucino, which is now sold in grocery stores). Starbucks has also collaborated with Capitol Records to create Blue Note Blend, a jazz music CD sold in Starbucks outlets. Schultz says, "We discovered along the way that sustainability is directly linked to self-renewal. Even when life seems perfect, you have to take risks and jump to the next level" (215).

In contrast to Starbucks, the Great Harvest Bread Company gives the opening advantage to adaptation rather than fidelity. In *Bread and Butter: What a Bunch of Bakers Taught me about Business and Happiness*, Tom McMakin explains:

> The culture of Great Harvest comes out of a dynamic tension between two antagonistic ideals. On the one hand, we love quality. We are stubbornly opinionated about the best way to run a bread company. Taken by itself, this idea would lead to an autocratic operation committed to strict quality standards uniformly enforced on all franchisees. We have a second ideal, equally strong, however. We believe that no person, society, or institution can be great without liberty. In our hierarchy of values, freedom is at the top (51).

The result is what the company calls the "freedom franchise." Although every owner must display the Great Harvest sign, purchase premium wheat from approved suppliers, and fresh-mill the flour, there are no rules regarding recipes or store design or product selection. In fact, the contract for the company states, "Anything not expressly prohibited by the language of this agreement is allowed" (McMakin, 2001, 52). But the freedom doesn't mean that owners manage their businesses in isolation. There is, McMakin claims, shared ownership: "They run their bakeries within a community of like-minded owners each struggling with the same challenges and each bringing different challenges to the job"(51).

BP fits somewhere between Starbucks and Great Harvest in terms of its management of the dilemma of fidelity and adaptation, but predictably (given that BP is still a novice at scaling up), the fit is unstable. That is because it is complicated by intuition. One BP staff member's analysis helped us understand this:

> In the Big Picture jazz ensemble, Littky and Washor (and a few other trusted souls) are the master teachers. As master teachers, they look for raw talent - those who "get it" in their gut, and those who show promise. As master teachers, they serve as models and guides. They suggest what their students need to exercise, and they provide critical feedback on how the students sound. It is the master teachers who make the call as to whether or not the musicians have the BP sound, and they give the accolades and/or evaluate them on how they play. Peace Street and Shepard [two of the Met sites], for example, are different versions of the same jazz standard. The same can be said of each advisory. Some improvisations (i.e. doing home visits before the school year starts as they did at Washburn) get a nod of "coooool." Other improvisations raise concerns about how well the players have the basics in their gut.

But founders' intuition stretches only so far. Other people at BP now are in the daily business of supplying – or withholding – the "nod of cool." Their intuitions will take time as well as deliberate mentorship to develop – one involving continuous tuning up. Meanwhile, they naturally rely on more or less explicit rules. Here we use the word *rule* to associate it with a favorite BP term, *backsliding*. People associated with BP regularly invoke the phrase "No backsliding" to capture the organization's determination to stay at the edge of innovation. But sometimes BP staff members apply the term in too rule-bound a way, according to the BP Co-Directors. Littky told us about asking one staff member to visit the Met every time he visits a newer school, so that he can temper his concern about the new school's development with fresh perspectives on the realities of the more established school. Washor told the staff one day: "We're still playing with our own fidelity. We're still not sure about what the *it* is that makes it right. If people out there do things differently, and it works, what does this mean?"

In this first year of Big Picture scale up, some local improvisations got the "nod of cool," while others did not. Among those getting the nod were Washburn's home visits before the beginning of the school year. The principal and advisor conducted initial learning plan meetings with students and family members in familiar surroundings, hoping to gain insight into the incoming 9th graders' family life. We heard TYBO 2 principals pick up on the idea: "Home visits before school, like they do at Washburn."

Other initiatives failed the test. At Washburn too, all students are required to take a community college math course, and they do so in groups depending on the course level each has tested into. Students attend class, prepare homework assignments, and take tests – all of these activities out of the Big Picture norm. "Totally unacceptable," one BP staff member declared. Elliot Washor is not so sure, however, and wants what he calls "distinguishability talk" to decide the matter. Such talk is clearly needed since even within the relatively prescriptive environment of BP scaling up, variations of practice

abound. At Clemente, the students spend time each week working with computer-based math and science learning modules. Students then complete on-line fill-in-the-ovals tests and are required (by the school) to receive 80% on each test before moving on to the next module. One advisor recommends that future scale-up schools incorporate math and science classes or focused work into their "curriculum design." An advisor at another school says, "Sure, there's some evidence of backsliding in the math and science, and the tutoring in language arts, but that's what's going to help the school survive [referring to good test results]. You have to feed the beast!" Middleton chose to create largely mixed-age advisories, a practice at variance with that of the Met, but now under consideration at other Big Picture Schools also. TYBO 2 principals also note adaptations in the works. One will have a bilingual program. When asked by a BP staff member what he will do if students are not interested in studying Spanish, he responded, "Oh, they will be!" Another TYBO 2 principal plans to have "reading software that focuses on individual reading areas" because "it's great to say that kids are reading books on their passions, but what if they can't even read yet?"

How can distingishability talk mediate these differences? The purpose of distinguishability talk, Ron Wolk says (he the Chair of the Big Picture Company Board, and founding editor of *Education Week*) "is not to gain control, but to raise questions about direction. If we keep doing this, where will it lead?" And how does where it will lead square with Big Picture ideas? Nor is the purpose to fix the point between fidelity and adaptation for all instances and circumstances – an effort that would likely threaten the disturbances or perturbations that Margaret Wheatley (1992) argues are the sources of continuing innovation. Thus an effort to handle one challenge too tightly – attempting to resolve rather than manage the dilemma of fidelity and adaptation – would risk intensifying another challenge – learning from experience.

This is where the principle of "and/both" comes in, according to Elliot Washor. Distinguishability, he says, involves conversation over time that clarifies *core practices* by thinking hard about them in the light of the apparent contradictions that arise in *actual practices*. As core practices, he especially counts advisory, LTI, learning plans, exhibitions, and family engagement. Among the apparent contradictions arising in actual practice, he and other BP staff participating in a recent conversation about distinguishability mentioned "learning and unlearning," college classes and individualized projects, work and play, taking the school out into the community and bringing the community into the school, being a student's friend and "cracking the whip," running things tight and running things loose. In distinguishability talk, he says, one tries to get clearer about LTI, for example – about its essence, about the boundaries of permissible adaptation – by talking about how it can be considered *both* work *and* play. Or one tries to get clearer about what is essential in an advisory by thinking about the ways that an advisor must *both* be her advisee's friend *and* "crack the whip."

BP is currently at the very beginning of its effort to design an overall differentiation strategy. The effort coincides deliberately with the overhaul underway of its coaching design. The two BP-based coaches who traveled to the new western schools this year (both former Met advisors) will be replaced there by local coaches with BP

experience but no Met ties. This will enable the BP staff to stay closer to home (important to them for family reasons), and will enable them also to resume their work as design overseers respectively of the curriculum materials and of BP Online. Good as the materials are, they will need tending in BP's view – particularly as new practices gaining the "nod of cool" continually emerge. And BP Online is widely acknowledged within BP to be not yet up to speed technically, while remaining very promising. These two staff members are likely also to continue to serve as "tech support" coaches – people whose depth of experience with the materials and commitment to faithful practice – make them crucial sources of just-in-time support. Meanwhile, the new Midwestern schools opening in September 2003, as well as the new mountains-region school, will be coached by a person with no previous Met or BP ties, but with considerable school coaching experience. Thus all the coaches next year will have less, rather than more experience to rely on in judging whether the schools are optimally faithful and optimally adaptive.

Into the breach will jump the Co-Directors – attempting in effect to grapple with a couple of questions we raised in Essay 1: How far can the Big Picture Company scale up its own Co-Directors? How far can two guys reach? Elliot Washor will hit the road. Indeed, he plans to make his base of operations in San Diego rather than Providence, moving there with his family this summer. But he will spend much of his time visiting Big Picture Schools, as well as encouraging the development of new ones. In this role, he will superintend on-site distinguishability talk, and search for and spread inventive practices. Meanwhile, Dennis Littky will spend more time in Providence, working particularly on the Met's "lab school" function. "How can I stay home and still be a major player in the work out there?" he told us that he asked himself. He concluded that he could train TYBO principals more thoroughly during their time in Providence; be more involved with visits to the Met from prospecting sites; and deepen the Met's experience as a system of small schools, and thus as a proving ground for a different conception of school *district.*

Strategy 3: Imagery

An organization deeply skilled in the use of *imagery* as a scaling-up strategy is the Disney Corporation. The orientation seminars of new employees there, who are known as "cast members," take place in "specially designed training rooms plastered with pictures of founder Walt Disney and his most famous characters. . . . They aim, in the words of a Tom Peters Group video, to 'create the illusion that Walt himself is present in the room, welcoming the new hires to his personal domain. The object is to make these new employees feel like partners with the Park's founder'"(Collins & Porras, 1994, 120).

The Body Shop recognizes the power of imagery not only to instill shared ownership, but to grow local expertise and communicate across a complex enterprise. Anita Roddick (2000) writes, "One of our most successful communication tools was in-house video. Most of our staff are under 30 and were raised on sound and vision bites. They expect to be communicated to in this way. . . . Video is good at motivating people, unlike print, which is fine for information but not much else. Video helps get messages

and attitudes across to staff around the world; everyone understands a crowd marching behind a banner and demanding change"(83-4). Roddick also works hard, she says, on creating "visually stimulating" work space by hanging art, photographs, and quoted words throughout. She points out that style has the power to become culture, particularly if it signals difference. "Whatever we do," she adds, "we have to preserve that sense of being different and of doing something that hasn't been done before"(84).

Like Disney, BP cultivates close relations between its principals and the company's co-founders. The former regard the latter affectionately and admiringly. For their part, Littky and Washor use their status to push vision, and they also cultivate their status for the leverage it gives them locally to help principals solve political problems. When one of them receives an award or is otherwise acknowledged, BP makes sure that the fact is publicized. Like The Body Shop, BP favors video over print as a medium of communication. Littky likes to say that only a few thousand people read the book about his work as an innovative principal in New Hampshire, but millions watched the TV movie made from it.[6]

As with the Body Shop too, the BP work environment is stunning in its visual evocation of the organization's work and mission. Resident photographer and videographer, Cal Wolk, has done much to create this imagery with his photos of students working and learning. In their early trips this year to the new Big Picture Schools, the BP coaches helped the schools create imagery for their walls. It would perhaps not be one of the first things for most school coaches of struggling new schools to think to do, but it was a quintessentially Big Picture move, and it seems to have worked – not only to brighten these new environments, but to enhance shared ownership of the Big Picture vision.

All of the scale-up schools now make use of wall space for the display of students' photos and other artwork, of the Learning Goals, of schedules, and of cultural icons. Walking into an advisory at Middleton, one immediately notices the posters, slogans, and pictures on the walls. One advisor there had all her advisees write their names in a distinct font which they felt embodied their personality. At another new school, we observed a Pick-Me-Up based on a power point presentation complete with music and streaming video of students' trip to a conference on alternative education. Lots of clapping greeted the student credits listed at the end. The simultaneous focus on students' own work, on the power of technology as a tool for learning in the community, on the enhancement of community feeling within the school, and on the value of "alternatives" to ordinary high schooling was thoroughly Big Picture.

One TYBO 2 principal, creating a budget wish-list, told us, "I'd like to get a video person like Cal for the whole year to make a film about our school, students, and neighborhood." His wish is doubtlessly forlorn, given the strain on resources faced by his and most other developing Big Picture Schools. But as a gesture of shared ownership, and a sign of the direction his own leadership may take, it seems promising for BP scaling up. Meanwhile, plans emerging for video networking among the schools may

make it possible to share the talents of Cal Wolk, and in a larger sense make the generation of imagery a collective responsibility of the Big Picture Schools.

But imagery as a BP strategy is about more than videos and what goes on walls. It is also about the construction of the walls themselves, and about enticing people to unlearn prevalent ideas of high school design. Its chief tool in this regard is the visit to a physically different high school, namely the Met's remarkable Public Street campus, and its equally startling Peace Street site. The visitors include prospective leaders and advisors of Big Picture Schools; potential developers or funders of such schools, including school district superintendents, board members, and state education officials; or leaders of the small schools movement in general. For them, the imagery of the visit works together with other things: a talk they heard by Elliot Washor, or by Met students functioning as "Mexperts" (See below); a reading of Elliot Levine's (2002) book about the Met; or knowledge of the endorsement of the Big Picture design implicit in the funding by the Gates Foundation.

Key to BP architectural design, according to Elliot Washor, is that it is "design for redesign." He means two things by the remark: first, that the walls can move – not as flimsy partitions do, but with a weekend's worth of refitting; and second that the design is exportable. One of the Midwestern cities with two TYBO 2 schools is now building for still other Big Picture Schools a campus modeled on the Providence Public Street one - although one BP staff member told us that the city "has already learned from us here and is designing [for even] fewer constraints" on student experiences. The architecture of Clemente's new building was inspired by the Met's designs. When the school's principal first spoke with the architect commissioned for the project, she felt that he "didn't get it." So her husband, also an architect, assisted her in helping him understand. Having been to Providence, she knew what she wanted.

The potential downside to the use of Met architectural imagery as a scaling-up strategy for BP is that a visiting official – say, the superintendent of a small district in Maine or West Virginia – may come to think that resources needed to create a Big Picture School are out of reach. Indeed, most of the TYBO 2 leaders have faced serious difficulties in locating even rented facilities, never mind in persuading local officials or funders to build them new ones like those of the Met. But so far, the power of the Met architectural image within BP scaling up seems to have had far more positive than negative consequences. Visitors – however poorly or well resourced their planning and school development efforts may be – seem appreciative of the chance to match words with image – to be within a new and differently designed small high school. In this sense, BP's investment in the Met facilities seems to have been well placed. We refer not to dollars themselves (which the state raised), but to the eight years of effort by BP to ensure the commitment and flow of these dollars, to ensure that the designs matched the ideas, and to keep a close watch over the entire process of design and construction.

On the other hand, it is useful to remember that previous generations of school reformers have used space and other physical arrangements – particularly open space, and moveable walls and furniture - to evoke interest in their reform designs, and to

provoke people to try them. Sometimes also, those moved to try the designs – for example, architects, these reformers have gone so far as to (Cuban, 1993; Tyack and Cuban, 1995). But actually learning to work in new ways within new space requires more than the space itself as the teacher. It also requires most of the other strategies we are concerned with: articulation, differentiation, training, coaching, and building and networking communities of practice.

Strategy 4: Transparency

The BP use of *transparency* as a scaling-up strategy takes four distinct forms. The first is about making Big Picture practices transparent for the sake of those who want to learn about the Big Picture design. The second is about making Big Picture practices transparent so that those who actually use them can learn from each other's use. The third is about making internal BP operations transparent so that those most involved in scaling up can do their work efficiently and well. And the fourth has to do with making Big Picture Schools' outcome data accessible to those who may be interested in adopting the design or evaluating it. Each of these varieties grapples with different challenges of scaling up, as we explain below. And each has counterparts in the scaling-up experiences of organizations outside the world of schooling.

1. *Transparency for learning about Big Picture.* Here transparency serves the purpose of teaching the Big Picture School design to those who need to learn it. Thus it tackles the challenge of growing local expertise. As we pointed out in Essay 1, and also suggested above, Met facilities are a good place to experience this particular BP use of transparency. The new Public Street campus of the Met, for example, is not just a different kind of school open by arrangement to visitors interested in developing their own Big Picture School, but it has been designed – physically and in other respects also – to serve the learning purposes of the visitors. In this respect, it is the equivalent for BP of what Hamburger University is for McDonald's. Thus the rooms have placards identifying their use – somewhat as if they were exhibits rather than functioning spaces in a real school. But they *are* functioning spaces in a real school, or rather four real schools sharing the same campus.

James Nehring (2002) points out how hard such visits can be on a much visited new school (he having been the Principal of one): "All those curious, eager-to-talk-to-you onlookers can get in the way of teachers and kids engaged in the school's central work, and at a time when the school is quite tender and fragile"(21-22). Still, he regards inviting visitors as a public obligation that innovative schools incur – the price they pay for whatever has permitted them to innovate, and in the process to have become so interesting.

2. *Transparency for the improvement of Big Picture practice.* Here transparency aims to serve the learning purposes of people already using the Big Picture design. Thus it takes on the challenge of honing local expertise, and also the challenge of learning from experience. It also takes Nehring's argument a step further. Transparency does not just fulfill obligation, but brings advantage to the visited as well as the visitor. At the Met,

students have been encouraged to regard visits by strangers to their school as opportunities to practice going public with their learning. This makes a lot of sense in a school that pushes its students to interact confidently with adults outside the walls of the school, and that promotes and graduates students on the basis of exhibitions of their learning. The Met's principals and advisors are also encouraged – indeed, required - to go public with their work – for example, to engage in frank discussions about their work with TYBO principals in training who spend weeks of residency at the Met campuses. Dennis Littky puts the obligation plainly in recruiting new Met advisors:

> If you're coming here, baby, you're coming to a national school. Don't tell me that you don't want people visiting your classroom. That's not what this is about. If you want to be quiet in a school somewhere, go somewhere else. This is the mother school for a movement going on.

Littky wants to put pressure on the visitors too: "How do we get pay-back from the visitors? So, here's an easy one – everyone who comes to visit has to spend a half hour with a senior telling them about the college they went to." His perspective suggests a good definition of transparency – that one can gain learning from either side of the glass.

A good example of two-way learning from transparency comes from a 1990s intervention study of the effects of a continuous quality improvement model in regional health care. The research question had to do with whether such a model could cut morbidity in heart by-pass surgery. The intervention involved all 23 practicing heart surgeons in Maine, New Hampshire, and Vermont – plus other physicians and health professionals associated with all the region's heart by-pass operations. For nine months, these medical professionals visited each other's medical centers, observed surgical techniques, wrote lengthy reports to each other comparing what they saw with their own standard practices, and collaborated in making adjustments to these practices. The result, reported in the *Journal of the American Medical Association*, was a statistically significant 24% reduction in the mortality rate, as compared with the rate expected given no intervention (O'Connor, et al., 1996).

Reporting on the study, a writer for the *New York Times* asked an outside researcher on heart bypass death rates to comment on the likelihood that this adventure in regional transparency might continue beyond the terms of the intervention study, or spread to other regions. "Will human beings actually do this?" the researcher responded rhetorically. "Not until they're forced" (Cooperating, 1996, 13).

The reason for resistance is not just that transparency of this kind disturbs everyday routines, but also that it threatens customary practices and organizational norms. Indeed, this is the point of it. As Argyris and Schon (1978) would put it, such transparency involves "double-loop" as well as "single-loop learning" – and the former constitutes the real challenge of learning from experience. Here is their classic distinction:

> [In single-loop learning,] members of the organization respond to changes in the internal and external environments of the organization by detecting errors that they then correct in order to maintain the central features of organizational theory-in-use (18).
>
> We give the name double-loop learning to those sorts of organizational inquiry which resolve incompatible organizational norms by setting new priorities and weightings of norms, or by restructuring the norms themselves together with associated strategies and assumptions (24).

One Met advisor captured the Argyris-Schon difference for us in Big Picture terms, and in the process, illuminated the deep difficulty involved in double-loop learning. He does not "criticize questioning," this advisor told us, particularly around how to "improve" the "quality of our work." But he cautioned against questioning the "viability" of the Big Picture School design. He called, instead, for "faith" in it.

Taking a very different viewpoint, one BP staff member told us, "We should be able to talk about anything and not have people worry about being called a 'backslider.'" We found in the TYBO and Met TGIFs (weekly reflections published internally, and posted on BP Online) a tendency to substitute a kind of personal transparency for a professional one – that is, to go public with one's personal life, rather than with one's practice. A different staff member told us that he thought this TGIF tendency was the consequence of people having been "called on it" when they wrote something divergent.

The tensions expressed here relate to two challenges of scaling up that are difficult to manage simultaneously. On the one hand, BP wants to grow and hone local expertise suitable to develop a new Big Picture School faithful to the BP vision. To help meet this first challenge, BP tries to persuade locals to immerse themselves in the genuine thing as designed, to suspend any disbelief that may occur to them in the process, and to struggle to "unlearn" as well as learn. This is a reasonable thing to ask. Indeed, it seems crucial behavior for learning something as complex and different as Big Picture practice. Paradoxically, however, suspension of disbelief can also interfere with efforts to meet a second challenge, namely the challenge of learning from experience. This happens when the suspension of disbelief becomes long-term rather than temporary, and if it becomes a tenet of the larger organizational culture rather than merely a feature of the training environment. This is because learning from experience typically depends on systems for reporting misgivings and attending to them.

In a recent conversation at BP, one staff member suggested that BP might do well to work on these two challenges in a consciously separate way: to announce to newcomers, for example, that they will be expected first to try the Big Picture practices as designed, then later to reflect on them critically. BP could do the same with TGIFs: to encourage both warm perspectives, and cool ones.[7]

3. *Transparency to make scaling-up operations visible.* Here transparency tackles the challenge of communicating in a diversifying, complex environment. What is made visible in this case are the inner workings of the organization. Who does what? How do things get decided? Who needs to know what? Who is empowered to take which action? And so on. Because an organization scaling up is by definition an organization undergoing frequent and often dramatic shifts in the answers to such questions, it especially needs transparency of this kind. It is hard enough to experience such shifts, but much harder to experience them without being able to delineate precisely what they are.

In its first years, the Big Picture Company was a highly fluid organization – one in which lines of responsibility often blurred. "People were hired then," as one staff member told us, "because they were enthusiastic and passionate about the cause, and because they were smart." Part of being smart was being able to do lots of different things well, because lots of different things needed to get done. And in those days, given the limited resources, specialization seemed wasteful. It is different now, however, as this staff member put it:

> Given the scale of our scale-up in the next few years, we have to become a very, very well oiled machine – with each person being very clear about what his or her focus is, and with constant, fruitful, communication across areas. Specialization without siloization.

Her direct reference here is to the Providence-based BP staff, but she means indirectly the entire Big Picture operation – including the entities that BP contracts with to develop Big Picture Schools, the coaches and consultants it hires to help on site, and the principals who lead the schools. In response to the challenge she identifies – the one we termed above the challenge of communicating in a diversifying, complex environment – BP has recently introduced much greater clarity with respect to job responsibilities and accountability. It has also developed a more elaborate contract and contracting process.

Still the communications challenge is likely to remain considerable at BP for the foreseeable future. Again, the role that intuition plays in the workings of the organization may add an impediment - even while it adds power in other respects. One staff member put it this way: "Washor – Littky: they talk all the time with each other, but they are not the only ones who need to be in the loop - particularly as the scale grows larger." Meanwhile, though the organization has plans to avert problems associated with this, the fact that Littky next year plans to immerse himself in the Met, while Washor will spend much time away from Providence, may create even more communications problems.

4. *Transparency to provide reliable information.* Here transparency serves the purpose of accountability - both internally (for example, to assess productivity), and externally (to back up an organization's claims of effectiveness). Accountability is crucial to managing a number of the challenges of scaling up. It provides a rational basis for managing the dilemma of fidelity and adaptation. It builds the credibility that is

crucial for shared ownership. And it provides the data necessary for learning from experience.

The kind of transparency we highlight here is rare in schools - this despite the accountability pressures of recent years. These focus almost exclusively on bottom-line results - typically test scores - and may actually distract schools from assessing the productivity of their internal workings. Meanwhile, there is an old tradition of school reform that gives precedence to doing over studying the effects of the doing. It is the consequence not only of practitioner bias, but also of funder bias. The result is that institutional research - the internal, systematic effort to trace actions and determine effects - is rarely supported with either internal or external funds.

Our observations of the new and TYBO schools, as well as our review of BP documents, suggests that BP depends a great deal on institutional indicators: college-going rates, attendance rates, rates of client satisfaction, and also accounts of student experiences and samples of student work. As we pointed out in Essay 1, BP also understands the power of making these indicators widely and readily available. We wrote there that BP Online is planned not only as an articulation tool, but as a transparency tool - one that can make these indicators readily available. Indeed, quoting Fishman (1996), we drew an analogy to the internal website of the natural foods grocer Whole Foods:

> [Whole Foods] collects and distributes information to an extent that would be unimaginable almost anywhere else. Sensitive figures on store sales, team sales, profit margins, even salaries, are available to every person in every location. In fact, the company shares so much information so widely that the SEC has designated all 6,500 employees "insiders" for stock-trading purposes (103).

Five months later, BP Online is far from this kind of website. This is partly because the website remains still partially under construction. Technology always takes longer to get up and running than its enthusiasts acknowledge - especially so when the technology is custom-fit to an unusual purpose, as this is.[8] But the problem also is that BP lacks the internal research capacity necessary to fulfill the Whole Foods analogy, even if the website were fully functional. What is needed is more than an assiduous effort to collect the usual indicators on all the Big Picture Schools - hard as this alone will be. What is also needed is a smart effort to create new measures, ones that might help re-define accountability. Such an effort would be true to the BP spirit - which is why one staff member who spoke to us about this seemed pained by the present gap: "I would say the part of transparency that we really worry about is our data collection, our statistics." Shortly after she made this comment, BP announced that it would be hiring a new staff member to build and head an institutional research effort.

Strategy 5: Enculturation

Collins and Porras (1994) observe that visionary companies frequently have "cult-like" elements, such as a "fervently held ideology, indoctrination, tightness of fit, and

elitism"(122). This is because visionary companies mean to be different, and require "stronger indoctrination into a core ideology," a "buy in or get out approach," and "a sense of belonging to something special and superior"(123). Visionary companies scaling up have to work harder than others at the challenge of shared ownership because what is being shared *is* different.

We use the term *enculturation* to describe a common strategy for gaining such shared ownership. It is associated with what Bolman and Deal (1997) call the symbolic frame. This is the frame within which organizations become "tribes, theaters, or carnivals," where learning is "propelled more by rituals, ceremonies, stories, heroes, and myths than by rules, policies, and managerial authority" (14). As McMakin (2001) of the Great Harvest Bread Company suggests, "A community's values can be easily described, but often don't make sense until those values are experienced"(14).

In Essay 1, we especially connected enculturation at BP with the summer extravaganza called the Big Bang. The first Big Bang was held in August 2002, and included songs and new games; a "living timeline" on which everyone present stood, including the real Ted Sizer, and someone impersonating John Dewey (who handed out original-issue postal stamps with his image on them); moving personal testaments about struggle and diversity – by Met advisors and Met students; a Pick-me-up in the form of a game show; giant puppets who mingled with diners and pretended to mistake the Big Bang for a wedding reception; and a football kickoff plus hundreds of raining tiny footballs stamped "The Big Picture Company." Participants – who included principals and staff from all the new schools - left the event bearing gifts that included pictures of every other participant, and a Big Picture T-shirt and medal. An advisor in one of the new schools we visited this spring recalled the Big Bang fondly. "I don't think I could have bought the philosophy without being around the people." But he added, "It almost felt like a cult."

The *almost* in his sentence is doubtlessly the result of the fact that the Big Bang also included serious workshops and conversations. As with many of the strategies we are discussing in this essay, enculturation requires a deft touch. It begins with a dynamic of enfolding newcomers into a culture as if the culture were already theirs. This is an especially effective move at the point just past first commitment, in the early stages of community building when, as Grossman, Wineburg, and Woolworth (2001) put it, "individuals have a natural tendency to *play community* – to act as if they are already a community that shares values and common beliefs...to 'behave *as if* we all agree'"(955). This "play" scaffolds learning of the new culture's tenets and attitudes. But one must remember that at this point the culture is still play, that the community is as Grossman, Wineburg, and Woolworth put it, a pseudo-community. To become a real community, the newcomers must gain a voice, must find a way to bring their own work on its own terms into the cultural circle.

The second Big Bang is planned for August 2003. One of the staff members responsible for its development told us that its focus will shift - though only slightly - toward the serious workshop and conversation side. This seems appropriate since the

number of Big Picture Schools with actual experience (counting the new Met sites) has more than doubled since last August.

Strategy 6: Training

Training as a scaling-up strategy focuses especially on the challenge of growing local expertise. However, because there is no clear line between enculturation and training, it tends also to target the challenge of instilling shared ownership. Collins and Porras (1994) in *Built to Last* extol training programs "that have ideology as well as practical content" among their learning aims, and these both require enculturating experiences as well as instruction in principles and techniques" (138). Such training is common in visionary companies, they say: "Newly hired IBMers always learned the 'three basic beliefs' and experienced training classes that emphasized company philosophy as well as skills, . . . [and] learned language unique to the culture" (125). Similarly, Proctor and Gamble "inducts new employees into the company with training and orientation sessions, *and* expects them to read its official biography *Eyes on Tomorrow* (also known to insiders as 'The Book')" (Collins, 1996, 132, our emphasis). Howard Schultz of Starbucks says that every new barista entering the organization "has to take courses in Coffee Knowledge, Brewing the Perfect Cup, and Customer Service, as well as basic orientation and retail skills" (Schultz and Yang, 1997, 250).

Perhaps especially because it mixes what we would call enculturation and training, the Collins and Porras (1994) inventory of training devices in successful companies is useful in describing BP's work with these strategies. First, they say, there are the efforts to teach such things as values, norms, history, and tradition. In the BP context, this includes not only the Big Bang - with its theatrics, conversation, and direct instruction (for example, concerning BP Online); but it also includes the BP curriculum materials, and other articulation materials that often serve not just to entice clients, but also to orient their training once enticed. The category also includes the TYBO principal residencies at the Met; the effort in the principal training to instill a Big Picture instinct with respect to hiring, politics, public engagement, and leaderly presence; and the effort to make everyone involved with Big Picture Schools feel part of a movement, rather than merely design clients. As a second category, Collins and Porras name internal "universities" and training centers. In the BP context, this category includes the effort in the TYBO principal training to foster particular skills: for example, assessing project depth, fundraising, building community relationships, and analyzing data. It also includes the principal certification program that BP developed with external funding; the "rookie camp" that the Met uses to train its new advisors - now with its West Coast and Midwest clones; and the planned video conferencing series. Third, Collins and Porras list on-the-job socialization by peers and immediate supervisors. In the BP context, this category refers to what we describe below as efforts to network communities of practice. Fourth, Collins and Porras mention plant and office layouts that reinforce norms and ideals, as well as "constant verbal and written emphasis on corporate values, heritage, and the sense of being part of something special" (136). In the BP context, this category refers to the transparency of the Met, and also to the Big Bang, to BP Online, and to the

omnipresence of BP's co-founders and Co-Directors with their links to the vision and their particular kind of coaching.

There are layers of training necessary to any scale-up effort, and those directing the scale up have to figure out which layers they will provide directly and which indirectly and how. BP deals directly with principal training, and uses a mix of direct and indirect methods in the training of school advisors, LTI Coordinators, and other locals.

Thus by contract with Big Picture School developers, BP assumes direct responsibility for principal preparation in the TYBO year, and for follow-up training and coaching of principals during the first two years of a new school's development. It discharges this responsibility through The Big Bang; the Met residencies (up to six weeks, combined with BP-based conversations); on-site coaching; on-site consulting (for example, on the scouting of local funding sources, or on facilities location and development); a mid-year principals' retreat (a networking opportunity for all Big Picture School principals); and distance-learning opportunities (high-priority access to BP staff and Co-Directors by phone, and to the materials and forums at BP Online). As the result of an analysis that turned up some gaps in this year's TYBO training for principals, BP next year plans to introduce a set of "key experiences" that a new principal must have - for example, visiting an actual LTI, and interviewing the student and LTI mentor. In an inventive touch, the key experiences can be gained by various means - for example, in a Big Picture School other than the Met - but must be debriefed by a BP trainer in order to count as a key experience for TYBO training purposes.

BP deals with the training of school advisors, LTI Coordinators, and other people needing Big Picture training through a mix of methods that include focused materials and dedicated forums on BP Online, the regional rookie camps (co-designed by local principals and BP staff), the Big Bang (to which all Big Picture School staff are invited), and, of course, turn-key training by the principals. In general, turn-key training has severe limitations as a strategy for scaling up something as complex and different as the Big Picture School design. This is because new principals are unlikely, even after a year of preparation, to have learned the design comprehensively enough, or in sufficient depth to begin training others. Originally, the BP training scheme relied substantially on turn-key training, but BP recognized the fault early and has acted to correct it. And now even turn-key training may involve some direct training at the source. Thus the TYBO 2 principals recently brought their newly hired advisors and other staff to Providence to see firsthand what the BP design and philosophy look like and feel like at the Met. As their principals had earlier in the TYBO process, TYBO 2 advisors shadowed a Met advisor, experienced a Pick-Me-Up, talked with students, visited an LTI, and received instruction in the use of BP Online.

One TYBO principal told us that the experience was more about unlearning than learning: "letting go of the structures we've come to know as school and seeing the depth and meaning of Met-like learning." The heart of it, he claimed, was the "great conversation" that the trip to Providence started among the staff, and between its members and their only slightly more experienced principal.

The above paragraphs provide a skeletal sketch of BP's training activities, both direct and indirect. However, the sketch fails to capture important dimensions we should acknowledge. One of these dimensions concerns the evolving nature of the training scheme. Things change fast at BP, as the consequence of its learning from experience; its habit of taking quick advantage of serendipity - for example, an unexpected funding source; and its nimbleness in using apparent obstacles to advantage - a staff pregnancy, one Co-Director's wife being offered an important job in San Diego, another Co-Director's need to get re-connected with the Met. Thus arise the new regionally based coaching design beginning next year; Elliot Washor's new role as traveling connector and consultant; Dennis Littky's new role as impressario of the Met residency; the plans for frequent video conferencing beginning next year; talk about shifting some of the burden now falling on TYBO principals for political work and facilities development to some "advance" people.

Another important dimension of the actual BP training work not captured by the skeletal sketch is that it really starts with the hiring process. By contract, BP shares with local school developers the responsibility for hiring principals of Big Picture Schools (and re-hiring them as needed - Clemente's principal has announced that she will be stepping down at the end of this year for personal reasons). This is a politically complicated task. While many school districts today are gaining experience with contractors as school designers or even school operators (Edison Schools, Victory Schools, New American Schools, Big Picture Schools, and so on), most find shared governance difficult in the details. And with a notable exception among the TYBO schools, all of the current Big Picture School developers are school districts. The political complications are enhanced in this case because BP puts great emphasis on hiring well. Thus it guards closely its hiring prerogative, and indeed walked away from one local site during the early TYBO process there when it became apparent that the Superintendent of Schools intended to exercise sole discretion in hiring the new school's principal. Meanwhile, BP's emphasis on hiring well is in typical BP fashion laced with intuition - with a you-know-it-when-you-meet-it search for passion and gut instinct. This can make negotiation over hiring all the more difficult.

And, of course, hiring does not stop with principals. There are other people needed to staff a new Big Picture School, and they must be people able and ready to fill such unconventional roles (in the context of ordinary American schooling) as an advisor or an LTI Coordinator. Originally, BP intended to rely on a turn-key approach here too, or as Dennis Littky put it, "You hire the best principal, and then you have to stop." But he believes now that BP has to go further, finding a way to scaffold the process for staff hiring in the same way that the curriculum materials scaffold the development of advisories or of LTIs. How, for example, can a principal hire for diversity? What hiring methods work best for such a purpose? How can the principal hire for passion? How can he or she ensure "out of the box thinkers"? In raising such questions, BP is beginning to address in yet another arena a deeper and crucial question - one that derives from its particular character, but that seems hardly unique within the larger arena of American school reform: How do you scale up intuition?

Finally, an important dimension of BP's training scheme not captured in the skeletal sketch is what Dennis Littky terms the "magic" of it, using the term ironically. Indeed, in his view, "magic" envelops the application of all BP's scaling-up strategies. Here is how he put it in an interview with us:

> You should probably do a section on all the things that went wrong. Because people don't know. People think, Ah, it looks so smooth. That's why I call this stuff magic – what makes something magic is that you don't see the stuff in between – you know, sleight of hand [does a coin trick]. So, it's like this building [pointing out the Public Street campus] – people think it's amazing – but it took eight years to build it. Or you say, "Oh, yeah, they got x schools – sounds so easy, but people don't know that three of our principals have left already, we turned down three schools, there were all these kinds of things. Somehow, people have to understand that, because one of the reasons people have trouble scaling up is that people don't talk about their flaws.

Since it is not really magic, what is it? He uses the term *working it*, and also the term *being there*.

> So, two years, and the principal you trained is gone. So you have to work that. . . . If you don't work that right, if you're not in at the right time, all of a sudden you get the Assistant Principal from the High School who moves in, and your school is gone. It's about knowing that, being there enough, and then staying there and doing it. . . . There are all these things that no one sees. . . . So somehow people have to know all that, and that that's OK, that it's about going through a lot, and still going out there.

Strategy 7: Coaching

"Working it," "being there," "going out there": the phrases that Dennis Littky uses to unmask "magic" are good terms to describe the essential functions of *coaching*. This strategy addresses at least four of the challenges of scaling up. It is at the heart of *managing* - as in *managing* the dilemma of fidelity and adaptation - because it involves getting close to local effort, and conferring with local people about the adaptations they make and why. Because it assesses the value of adaptation at its source, it also affords an invaluable source of feedback, and thus an opportunity to learn from experience. To the extent that the assessment is collaborative - as it often is, given the intimacy of many coaching relationships with their reliance on close observation and conversation - then coaching helps build shared ownership of the design. This effect is intensified if the learning from experience is double-loop - that is, if it uses what has been learned locally to re-consider elements of the central design. Finally, with respect to the challenge of finding, growing, and honing local expertise, coaching targets the *honing* part.

During the past school year - the first with schools up and running outside Providence - the term *coaching* in the BP context has referred especially to the work of

two BP staff members, both formerly advisors at the Met, and both heavily involved in the preparation of the BP curriculum materials. From their base in Providence, they commuted regularly to the West Coast schools, where they coached both principals and advisors on the Big Picture design in use: Learning Goals, Learning Plans, project development, LTI development, enculturation activities, strategies for working with families, and more. Following each visit, they wrote long "narratives" back to the principals, mirroring a process that Big Picture School advisors use to evaluate students; and they wrote notes to their colleagues based on their judgment of the schools' developmental trajectories - about how well they seemed to be doing, and what they seemed to need. Available to the schools from Providence also, via phone and on line, they functioned as "go-to guys" or "tech support coaches" for immediate problem solving. One advisor told us, "I've called the coach and been on the phone for three hours, saying, 'Tell me your best tricks.'"

The job of coach as defined this year required (1) great interpersonal skillfulness - for example, the capacity to build relationships with a diversity of people playing a variety of roles in a diversity of contexts - and under circumstances that both aroused some degree of anxiety in the people, and also sharply constrained time available for building the relationships; (2) depth of knowledge and expertise - about the Big Picture design and its materials in particular, but also about teaching and learning in more general terms; and (3) a deft capacity for playing what Peter Elbow (1986) calls the believing and doubting game - that is, for continually shifting between warm and cool perspectives, using both to foster school and professional growth.

This is a formidable set of demands. Indeed, when this year's coaches needed to limit their travel for family reasons, BP chose to re-define the job (in the process, lessening the demands, and accepting trade-offs). Thus the three coaches next year will have more knowledge of the local contexts, because they themselves are either from the contexts, or will spend more time there. This will lessen some of the interpersonal stretch, but at the cost also of attenuating their relationship with Providence-based BP staff. Because none of next year's coaches have Met experience, the Providence-based BP staff may regard their judgments as suspect on the fidelity side with respect to the challenge of managing the dilemma of fidelity and adaptation. On the other hand, with their deep Met roots and the very significant roles they played in the authorship of the curriculum materials, this year's coaches were viewed by some BP staff as sometimes overemphasizing the fidelity side. Moreover, two of the new coaches bring experience of school coaching in other contexts - quite extensive experience in the case of the new Midwest and Mountain-states coach.

It is important to note also that BP has not so much eased up on a job description, but broken one demanding job description into several more doable and fillable ones. So last year's coaches will still be "go-to guys" and "tech support coaches" available from Providence by phone or on line - while they also do materials research (especially on the question of helping Big Picture School students gain quantitative reasoning skills), update existing materials (completing the feedback loop), and continue the technical development of BP Online. They will also serve as coaches of the coaches – presumably

with respect to the latter's need to gain a richer knowledge of the Big Picture design and materials. Meanwhile, the new on-site coaches will stay more closely on site and provide more generic (as distinct from BP technical) developmental advice to local schools. And Elliot Washor will play a kind of super-coaching role - one that crosses the first kind of BP coaching described above, with another kind.

This other kind of BP coaching is not generally called coaching by BP. As we said above, Dennis Littky calls it "magic," or "working it," or "being there." He might also have called it massaging the political context. By any name, however, it tackles the four challenges that we ascribed above to coaching in general. First, it fosters both faithful implementation and smart adaptation - for example, by building relationships with district superintendents, advising principals in crisis, and providing back-up in the form of consulting or other resources. Second, it gives BP a crucial feedback loop for learning from experience - straight to the organization's Co-Directors. For example, the feedback it generated in this crucial first year of scaling up allowed BP to take a more balanced view of the process than it otherwise might have. With their long experience as school developers - not only at the Met, but well before it, Littky and Washor tended to apply a warm or appreciative perspective to the efforts of the new schools, in contrast to the cooler or critical perspective that the school coaches and others on the BP staff tended to apply. Both perspectives are crucial to successful coaching, and achieving an overall balance is crucial too.

Third, this other kind of coaching hones local expertise through modeling the expertise on site: negotiating with a superintendent, scouting for useful community connections, interacting well with parents or students or business leaders – all of these in plain view of the one being coached, usually a new principal. And, fourth, it promotes shared ownership in at least two ways. One way - especially characteristic of Littky's coaching - features a distinctive and infectious charisma. Here is an example, in his own words:

> I was waiting for __ [Washburn principal] to pick me up at the hotel, and there was a limousine outside the hotel, so I asked the guy, "Who's here – some famous guy?" He said, "No, the hotel uses it." So I said, "How much will it cost me to give some kids rides for an hour?" He said, "Sixty bucks." I said, "Meet me at 9:30." And after Pick Me Up, I said [to the Washburn students], "C'mon, I have a surprise for you," and we went outside and there was this big limo. It took eight kids at a time. They were dancing, blasting music. Just a ten-minute ride. Then we did another eight kids. There was something about that spirit that made it Big Picture spirit.

Another way this other kind of coaching promotes shared ownership is by clarifying the vision - the thing "owned." This is Washor's specialty. When we asked him recently in an interview whether he would describe the new role he is taking up next year as that of a coach, he demurred. More like a Johnny Appleseed, he said at first, or a "school designer," a term he attributed to Expeditionary Learning, one of the New American Schools developers. But then he settled on a metaphorical job title that he

attributed to Horace Mann "or one of these people in the 19th century who went around to a thousand schools, and *glued* the network together." He added, "You can glue it by using the curriculum materials, but there's something about the face-to-face, relational meetings that is important."

But, we pressed, what is the aim of these meetings? What makes them *glue*? And he began talking about Frederick Law Olmstead and his vision of the "park experience." Olmstead said that a park has to offer four things, Washor explained: prospect, refuge, legibility, and mystery. And this is also, he continued, what a Big Picture School has to offer physically. Using Olmstead in this way is classic Washor vision-coaching - helping people understand why, for example, the Public Street Met campus is designed as it is by translating it into textually different terms. "It's like Prospect Park," he might say on one occasion, to one group of people. Or on another occasion, when speaking about student learning, he might speak of Mihalyi Csikszentmihalyi's (1991) theory of flow.

Both Washor and Littky acknowledge the limits of the kind of coaching they can do personally. Washor says that BP is going to have to design "systems" to replace himself and his partner:

> I was sitting on the plane yesterday, and I was thinking 44 schools in another three to five years, and it takes another three to five years for them to reach capacity -- so we're really talking five to 10 years for these 44 schools - I said to myself, Well, I can get around to a dozen, but I don't know how good I'm going to be at getting around to 44. So then what does it mean? I think a bunch of people are going to have to do that to keep the glue going.

Littky is more apt to imagine putting limits on scale:

> So what I'm trying to describe is all these little things that we do that no one sees. This is the part that I think makes us different. But I'm not sure we can keep doing this if we get too big. I think we're really at that cusp now. I'm not sure we're ready to take on – you know – I don't want to be those stupid people that I've always said – the people who failed because they went beyond what they could do. And this fifty school stuff scares me.

Strategy 8: Networking Communities of Practice

In Essay 1, we folded all the challenges of scaling up that we highlight here into an overarching one. Here is how we put it:

> As a reform extends its reach, it also must attend to achieving depth in new places. One way to say this is that as a reform *scales up*, it must also *scale down* - time after time, in place after place - each of the places as unique as a Met student. Getting this *up* and this *down* to happen at once is the heart of the challenge we are studying. Given the differences of the Big Picture School design . . . . the *down* is especially tricky.

A crucial strategy in scaling *down* in a particular place - that is, in attaining the right blend of fidelity and adaptation there, getting the right skills in place as well as some shared ownership of the design and of its animating vision - is what John Seeley Brown and others have called a *community of practice* (Brown and Gray, 1995; Wenger, 1998; McLaughlin and Talbert, 2001). It involves the work-focused but *off-task* conversations of people who work together, and who come to rely on each other to teach things that no one else can teach them – things concerning the most intimate and often the most crucial aspects of their work life. One might think of a community of practice as a second-order strategy - a strategy that extends the others, that keeps on articulating, training, coaching, and enculturating. Of course, it cannot do these things well on a continual basis, without benefit of occasional tuning - that is, without the benefit of collectively measuring its best ideas of the design against the best ideas of other communities of practice (McDonald, 1996). A good way to achieve tuning is through networking.

Communities of practice are rare in American schooling. Stigler and Hiebert (1999) write, "U.S. teachers work alone, for the most part, and when they retire, all that they have learned is lost to the profession. Each new generation of teachers must start from scratch, finding its own way." They call instead for "a system with a memory. . . one that provides a means of accumulating the experiences and insights of teachers. Without this, there is no way of getting better over time" (136-7). The equivalent of such a system is what John Seeley Brown and a group of organizational anthropologists discovered inside the Xerox Corporation in the mid-1980's. They noticed that repair technicians learned more about how to repair machines by swapping stories with each other informally than by consulting repair manuals. Here is how Brown and Gray (1995) describe what they came to call "CoPs":

> At the simplest level, they are a small group of people who've worked together over a period of time. Not a team, not a task force, not necessarily an authorized or identified group. People in CoPs can perform the same job (tech reps) or collaborate on a shared task (software developers) or work together on a product (engineers, marketers, and manufacturing specialists). They are peers in the execution of "real work." What holds them together is a common sense of purpose and a real need to know what each other knows. There are many communities of practice within a single company, and most people belong to more than one of them (4).

Having discovered the phenomenon of communities of practice lurking within it, Xerox set out to systematize the phenomenon. For example, they tried to add additional learning power through technology, giving technicians two-way radios so they could consult with each other on the job in real time. Later, Xerox also introduced one of the first web-based environments for swapping stories of practice. Today, many organizations in many fields - including at least the sub-field of schooling devoted to the development of small, innovative schools - regard workplace teams and the relationships they form both on-task and off-task, in real time and virtual time, as crucial sub-structures

of the organizations overall. This is where these organizations expect much learning from experience to occur, and where they expect to originate the smartest adaptations of design.

Communities of practice formed early at the Met. One BP staff member, formerly a Met advisor, told us that much of his professional knowledge in his Met days came from hanging around the Trinity Brew House on Fridays after work, swapping stories with other advisors. But systematization of the phenomenon has been slower to develop. Met staff "still do not share their work in the kind of way I would like them to do," Dennis Littky told us. Indeed, his plans for building a more genuine lab school at the Met starting next year are founded not just on the Met becoming more transparent for outsiders, but for insiders too.

Meanwhile, this year's new Big Picture Schools are building their own communities of practice. For Washburn, with only two staff members and some Americorps volunteers, the task has been easy. Dennis Littky calls it "the brilliance of starting small." But the Washburn community of practice is clearly still of the Trinity Brew House variety. One of its members told us of going to a bar and talking about work until four in the morning. At Middleton, where two schools share a building and a principal, one has a community of practice, the other not. The principal put the difference in these terms: At Lakeside, they "share more, work together more. They're like dogs. They travel in a pack and even though there's a leader, they work together. Hope is like a herd of cats: they're six individuals."

We will adapt her metaphor to distinguish between the two purposes of *networking communities of practice*, and thus to signal how hard these purposes are to achieve. One is to help the cats and dogs to learn from each other. What are the things that one group has learned that the other might profit from knowing? And the other is to get the cats to be more like the dogs - to ensure that each new Big Picture School wants to have a community of practice, regards it as part of the Big picture design; and that it does not have to go about the task of inventing a community of practice all by itself, but can borrow norms and practices from others.

Can cats learn from dogs, and vice versa? Can cats become more like dogs? "Widen the circle to solve the problem," says one BP staff member with regard to the power of networking. But how?

The Great Harvest Bread Company hires what it calls "field representatives" who visit bakeries to "act as bees, buzzing from bloom to bloom, cross-pollinating as they go, making sure knowledge passes from bakery to bakery" (McMakin, 2001, 63). Another way the company has encouraged networking is through its "cross travel program" in which an owner or employee of a bakery can visit another bakery and the company will pay for half the cost of the travel – no reports, no permission, no questions.

Great Harvest is a networked organization - or, as it calls itself, a "freedom franchise." As Tom McMakin puts it, the company is a cross between the big corporation where one of his friends works, and the bike store that another friend owns.

"The woman who works for the big company says she loves it - she's forever bumping into really smart people, which causes her to bubble over with ideas about how to improve the business. Problem is, she says, she has little authority to make anything happen" (59). Meanwhile McMakin's bike store friend complains that he spends most of his day alone. "I have all the power in the world to do whatever I want," he says, "but it's hard to get inspired. It is difficult to find time to read business books, or travel to small business conventions, much less talk to other small bike shop owners, who on some level I view as competition" (59).

Big Picture has some aspects too of a "freedom franchise," though also of a franchise plain and simple. In managing the dilemma of fidelity and adaptation, it falls somewhere in between Edison, Inc., and the Coalition of Essential Schools. On the one hand, it cares a lot about fidelity; on the other hand, it also cares about being what it calls "a movement" - of like-minded, passionate people with a sense of shared ownership of an evolving design. The tug it occasionally feels between the two is a test of Elliot Washor's "and/both" philosophy. Clearly, its capacity to build and network communities of practice will be crucial to passing the test. Without local communities of practice, BP will have to build an elaborate rulebook for its franchises - one that will eliminate the possibility of "movement." And without networking the communities, the movement will inevitably splinter the design into hundreds of fragments.

Thus BP has a number of networking plans under development. There is BP Online, for example, with its chat rooms and forums. Although a great place to download tools, it has largely proved uninviting thus far as a networking medium. That may be because parts of it need further technical work, or it may be because the communities of practice are too busy with practice to think about networking. There is also the Big Bang, which this summer will take on more fully the character of a networking opportunity for communities of practice, since there will be more established communities of practice attending this time. And there are the plans next year to launch a video conferencing project.

To understand the latter, it helps to know that in the mid-1990's, Elliot Washor and Dennis Littky tried to use a hybrid cable- and satellite-based television program to network the many communities of practice within the Coalition of Essential Schools, and the other reform networks associated with the ATLAS Project.[9] The program was called *Here, Thayer, and Everywhere* - New Hampshire's Thayer High School being the Coalition-affiliated school where Dennis Littky was then principal. The title captures what Washor would call its "and/both" quality – its attempt to work at once both locally and nationally, to deepen one school's reform practice even as it used the practice to strengthen reform networks. Each month, live from New Hampshire, Littky hosted the show, featuring Thayer teachers and students talking about their work, interviews of expert guests, and video shot on location in other schools. It also included many Big-Bang-like antics: funny hats, practical jokes, and so on. It seemed something of a cross between Bill Moyers and Sesame Street, though it was meant to be viewed by communities of practice, rather than by individuals. Indeed, many of the Coalition's

regional centers and other regional reform groups sponsored workshops for local schools that were built around the show.

Here, Thayer, and Everywhere (H.T.E.) ran for three seasons. It ended when Littky decided to leave Thayer, and after a long vacation, to take up residence at the Annenberg Institute in Providence as a Fellow. Under Ted Sizer's leadership, the Institute's Fellows program funded visionary practitioners and helped them incubate new efforts. Littky used his Fellowship to incubate the Big Picture Company - in partnership with Washor who had come to the Institute the year before. But it was not just Littky's and Washor's involvement with the new BP project that caused *H. T. E.* to go dark. The show had never quite fulfilled its promise, despite its technical and pedagogical inventiveness. The reasons seem important to consider, as BP attempts to build in effect the program's next-generation counterpart.[10]

For one thing, the communities of practice that constituted the program's audience were rarely the real thing. That is, they were not, by and large, like that of the Xerox repair people. They were not groups of people who worked closely with each other in the same work environment, and who shared a need to find out how others approached problems similar to their own. They were more typically professional educators from different schools and districts, sharing a relatively loose allegiance to a particular reform initiative like the Coalition, and attending what they regarded as a professional development workshop.

But a deeper and related reason is that the program's format – dictated at least partly by its technology – was wrong for its purposes. Recall that these purposes were both local and national. They were about improving practice at Thayer, and also about improving the practice across a network of reform-minded schools. In the case of Thayer, the problem is that preparing for a "show" is not necessarily a good way to improve one's practice – at least absent parallel efforts to undergo serious critique, and engage in dialogue with knowledgeable others. Indeed, having to put on a show can distract from the purpose of improvement, and there is some evidence that this happened at Thayer. Secondly, watching a show is generally not good professional development practice, at least absent thoughtfully facilitated "off-line" conversations about the show's content. This is true whether or not the watchers are members of genuine communities of practice. The *H. T. E.* developers knew this, and tried to compensate with built in "off-line" time. That is, the show would periodically pause – for, say, a half-hour – so that local groups watching could discuss what they had just watched; but the device often proved awkward in practice, and the facilitation poor.

Now, nearly a decade later, BP has the option to use video conferencing as the technological vehicle for what we suggested above might be regarded as "*H. T. E., the Next Generation.*" As it happens (by design, not accident) the Public Street campus of the Met has a state-of-the-art video studio and conferencing center. Meanwhile, the conferencers will be people working in Big Picture schools – that is, members of actual communities of practice, provided BP is successful in building communities of practice in its new sites. And BP is counting on eagerness among these communities of practice

to learn from their distant counterparts. Learning from distant counterparts is essentially the definition of *networking communities of practice*.

Indeed, we have found an eagerness for networking among the TYBO 1 and TYBO 2 principals, though a strong sense of the obstacles too. One principal told us, "Time makes it hard," which is why, she says, "BP needs to make more of an effort to push [us] to get together." Even in the face of great support from BP staff, another one said, the new Big Picture principals still tend to "go off into their corners and worry. We each have our own personal nightmares."

Of course, it is much too early to discern whether BP can pull it off - can both build *and* network communities of practice. There are simply too few schools yet. In the end, however, it is likely to take more than a "push" from BP matched by "eagerness" on the part of the communities of practice, and more than good tools also. McMakin, of the Great Harvest Bread Company, says that it takes a certain kind of leadership to make a networked world:

> Net leaders assume that everyone has a contribution to make that far exceeds their role. A leaders' job in a decentralized organization is to create space for that contribution and to help set it in the context of a larger strategy.

2.

The Mexpert Perspective

While much of the focus of BP's scaling-up work naturally focuses on adults, it is ultimately the students who make a Big Picture School. When a new school starts -a Met, Middleton, Clemente, or Washburn - the students create their own community of practice. In an unavoidable sense, they are the school's founders. Showing her sense of this, one Met student writes, "It was pretty hard to get the Met started because there were no other schools like it. We had to make things up, and we continue to change things so that the school can work better for students and staff." Why did she become a *Mexpert*? "The Mexperts feel that because we went through this challenging process, our experiences would be beneficial to the new schools." This seems the perfect definition of Networking Communities of Practice.

The Mexpert program, which started in the fall of 2002, is the joint creation of two Met seniors, Eliani and Julie, who developed it as their Senior Thesis Project, with assistance from a mentor who is a BP staff member. In a Big Picture School, the Senior Thesis Project is a mentored year-long project completed by every senior, and designed to give back to the community.

To join Mexperts, students need to be in 11th grade, and committed to attending trainings and workshops held throughout the year. Mexperts commit also to being leaders at the Met, running workshops at new Big Picture Schools, and documenting their efforts. In return, they gain the opportunity to travel - this year, to the West Coast. The commitments are demanding, and the first cohort got quickly whittled down from 20 students who attended the first meeting to five eleventh-grade students and the two senior leaders.

In her part of the Senior Thesis project, Eliani focused on organizing the trainings. She started by stuffing Met and Big Picture staff mailboxes with a flier that stated, "We need your help!" and asked for volunteers to facilitate trainings around specific topics. For example, "What makes a good PMU? [Pick-Me-Up]" "Learning Plans," "What makes a good exhibition?" and "Project proposals." In addition, trainers were sought for non-Big Picture related topics such as, "Travel tips for rookie travelers." The flier exclaimed, "Mexperts will carry your knowledge, insight and tips to schools 3,000 miles away. We need and appreciate your help!"

Seasoned advisors from the Met and Big Picture staff agreed to lead the Mexpert trainings, and Eliani gave them their assignments. One week Mexperts were trained on exhibitions – What elements go into a good exhibition? How do you coach others in preparing for a good exhibition? And the next week they were trained on feedback – Why is positive critical feedback important? How do you give good feedback? Mexperts were also trained in documentation – tools for documenting their trip, questions to ask, things to look for. A "Mexpert anthropology" was drafted to guide their documentation efforts.

While Eliani oversaw the trainings, Julie researched and collected information on the cities and the schools that Mexperts would be visiting. In the late winter of 2003, she led a training session in the style of a game show that conveyed the information she had found. For example, Mexperts learned which host city of a Big Picture School had the highest level of poverty (Providence); which Big Picture School had the highest percentage of students out at LTIs as of December, 2002 (Clemente); and which Big Picture Schools are required by state law to have their students take and pass an exit exam before they graduate (Clemente and Washburn).

In mid-March, Mexperts traveled in teams of two or three to the new Big Picture Schools. Prior to traveling, Mexperts consulted with the principals of the schools and the school coaches, and drafted an agenda for their visit. Each agenda reflected both the needs of the school and the interests of the Mexpert team. The Mexperts who traveled to Washburn, for example, met with small groups of students about their project proposals and helped students with practice exhibitions. At Clemente, Mexperts spoke with small groups of students about Gateway exhibitions and College Portfolios. At Middleton, Mexperts wrote and performed a skit as a starting point for a discussion on the elements of a good exhibition. Mexperts there also attended and spoke at a staff meeting. All three teams of Mexperts ran a Pick-Me-Up and advisory discussions at the schools they visited.

While Mexperts may best be considered an example of the training strategy - in the terms of this essay's typology - a closer look at the program and how it plays out in use reveals other scaling-up strategies embedded within it.

Articulation. Mexperts are both articulators of Big Picture philosophy, and themselves an articulation of the philosophy in use. The trainings they attended during the year provided an opportunity for Mexperts to see the bigger picture of Big Picture design. They researched, thought about, and articulated "what a Big Picture School stands for, what it consists of, and how it works." In the process, they gained a metacognitive view of their own education. In her reflection on Mexperts, Eliani hints at the effect. She writes about an incident at the airport in Providence:

> While we waited in line, a lady asked us if we were on a school trip. We explained what the trip was about and she seemed very interested. But I was even more interested and amazed by the way Mexperts answered her questions. They were so clear about the Big Picture philosophy. This really gave me a good feeling. It seems like my trainings really worked for Mexperts. I could see the difference in their excitement about the Met.

Meeting the Mexperts and hearing their stories put many parents' minds at ease at the West Coast schools. In this sense, the Mexperts seemed themselves an articulation of the Big Picture philosophy. Evidence of this appears throughout Eliani's reflection of her trip to Clemente. For example, she writes about her home stay with one of the

students: "Her parents had a lot of questions for me about college and the school. I know [the] family really benefited from my visit. . . . We spoke the whole day."

Differentiation and Learning from Experience. Given their immersion in the articulation of Big Picture philosophy, and their documentation of what they see and hear at the TYBO schools, Mexperts end up playing an important role in helping the BP staff understand where new schools "get it" (fidelity), where they have improvised successfully on the philosophy (adaptation), or fallen short (backsliding). In some cases, because they are students, Mexperts may get away with providing more blunt feedback on what they see. In the same way, any news they bring back to the Met about "cool" innovations is heard differently from their mouths than it might be from others'. In this way they serve as an important source of feedback.

There are several places in Eliani's reflection where she affirms Clemente's Big Picture-ness and points to what seem to her worthy improvisations on the design - indeed, ones that compare quite favorably with Met traditions. About BP Online, she observes, "At [Clemente] High School, the students really use BP Online. As I walked into an advisory, a row of students had the same thing on their computer screen – BP Online. I thought it was the funniest thing! The students at the Met do not use BP Online, including me, as much as other Big Picture Schools." Because of their more automobile-dependent location, Clemente students start and end their Tuesdays and Thursdays (LTI days) at the school. This is very different from Tuesdays and Thursdays at the Met, where students go directly to their LTIs on those days. Eliani writes, "When we drove back to the school [on Tuesday afternoon], all the students were waiting for their parents. The students were talking about their experiences at their LTIs. I was amazed by all the things these kids learned. At the Met we never talk [to each other] about experiences that happened at our LTIs." Pick-Me-Ups at Clemente are run by students – an idea Eliani thinks should be brought back to the Met. "Clemente's idea of creating a student Pick Me Up committee is very smart," she writes. "The students are more engaged, responsible and excited about PMUs. A PMU committee would definitely benefit the Met community. Students at the Met are not as involved in PMUs. I will take this idea back and share it with my peers and make some changes!"

Training and Coaching. The Mexperts serve the new Big Picture Schools as trainers, even coaches. They bring to this work the benefit of their turnkey training (in the Mexpert training sessions), but also and perhaps more importantly, the benefit of their experience as Big Picture School clients. They understand the design from the learner's side, and this side is important for new advisors and principals (as well as new students) to get clearer about. At the end of their visits, all the Mexperts were asked by their host school's principal and staff to offer assessments of what they had seen. The Mexperts at Middleton offered their thoughts at Middleton's weekly staff meeting. Although their concern about fidelity (Middleton being a conversion school) matched that of the BP staff coaches, the Mexperts' credibility as students drove the point home in a different way.

In their follow-up reflection, all the Mexperts offered suggestions to the schools they had visited. Katrina, a Mexpert on the Middleton team wrote, "In general, I think that Middleton does not yet understand the Big Picture philosophy. [But] I believe that with time and guidance, they will make tremendous progress. For instance, when, "I *have* to do this," starts turning into, "I *want* to do this," that is when Middleton will have made the transition." And here is Eliani again, on Clemente:

> Learning at Clemente is going in the right direction. Clemente is really using their resources well. Every time I walked into a room, all the students were using computers and logged into BP Online. I wish I had the opportunity to have some of their amazing LTIs. I did notice though that many of the students aren't clear about their LTI projects. As I visited some LTIs, I asked about LTI projects, but I did not receive an answer. Students do not know what they can get out of their LTIs yet. I suggest more mentor meetings. Mentors need to be aware of their importance in the students' education. I suggest mentor/staff and parent dinners to discuss possible projects for students.

Eliani goes on to give a specific example for a student with an LTI at a local preschool. "Charlotte's project is to put together a cookbook of the children's favorite cookies. But what are Charlotte and the preschool getting out of this project? Maybe she could teach the children the math involved in the recipes and she will help the preschool educate the children in math."

Building and Networking Communities of Practice. As we suggested above, the students at a Big Picture School constitute their own community of practice – one with unique needs. They need to learn how to put together an LTI and make it work; how to make a Learning Plan and follow it; how to organize their time well to get their work done and meet their commitments; how to negotiate with the adults helping them with their education: their advisor, parents, LTI mentors, and others; how to organize for exhibitions and portfolios; and, above all, how to unlearn what school is *supposed* to look like and be like. At the Met in Providence, new students are deliberately mentored into the existing communities of practice. First, there is Summer Infusion, a two-week "boot camp" for incoming freshmen - run primarily by experienced Met students and alumni. Then there is the fact that 10th-, 11th-, and 12th-grade students surround the newcomers at school. They model for the newcomers, and sometimes explicitly teach them what they need to learn to function well in the community.

As one of the Mexperts put it in the opening paragraph of this part of our essay, the Mexpert Program was founded to help ensure that no one ever again has to do what the first group of Met students had to do, namely start their community of practice from scratch. While curriculum materials and other online tools provide virtual support to new Big Picture communities of student practice, they cannot substitute for the relationship building that make the Met's communities of practice continuous year to year. Only deliberate student networking can do that.

Mexperts bring empathy to students at start-up schools - about how long it can take to unlearn old ways of learning; about how difficult it is to articulate the Big Picture School philosophy to others (for example, family members, neighbors, friends from other schools); about the stigma that may be attached to going to a school that is so different; about the doubts that can arise about whether one is learning "enough of the right things"; and also about the rush one gets in following one's own passions as a learner and in taking charge of one's own education.

Students at Clemente asked the Mexperts:

"I feel like I'm not learning the basics. Did you ever feel this way?"
"Did your friends call you a retard for going to the Met?"
"What is the best independent project you've done in your time at the Met?"
"Did your interests change over your time at the Met?"
"What colleges have you gotten into?"
"What was hardest to grasp about the Big Picture philosophy?"
"What was the most important thing you did to get into college?"
"What is it like to have the same advisor for so many years?"
"Are there qualities that your advisor has that you don't like?"

As happens with some Senior Thesis Projects at the Met, the Mexperts Program is being handed down to two juniors, and will become their Senior Thesis Project next year. These two students, both Mexperts during the past year, are already working to shift the focus off Met students as "experts" and toward the creation of a network of student leaders across Big Picture Schools. Through a nomination, application and interview process, they are currently selecting two students from each of this year's new Big Picture Schools - the ones they traveled to: Middleton, Clemente, and Washburn. Together with the Met's Mexperts, these students will hold a retreat concurrent with this summer's Big Bang. Next year, teams composed of students from at least two Big Picture Schools will travel to the new schools that will come from this past year's TYBO 2 process. There they will help these schools' students build their own communities of practice, and, of course, document what they see as a source of feedback for the whole Big Picture Network.

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[1] Consider in this regard the story of New American Schools, whose various design groups did enjoy a period of pilot research. See Berends, Bodilly & Kirby (2002).

[2] For a list of our research questions, and details on our research methods, see Essay 1 (February 2003).

[3] The list of strategies in this essay is slightly revised from the list discussed in Essay 1. The difference, however, is semantic rather than substantive.

[4] Our sample is both tiny (as a percentage of the schools that BP aims eventually to create and support), and also universal (in terms of Big Picture Schools in actual operation outside Providence during the 2002-2003 academic year). Both features are important for readers to note. On the one hand, the sample is too small – and likely unrepresentative eventually (for example in being predominantly non-urban, and in including two 'conversion' schools) – to serve well as a sample for evaluating BP's scaling up efforts. Luckily, this is not the purpose of our study. However, as a sample for exploring BP's early experiences and inventions – with an eye to their possible relevance to others' plans and efforts, the sample seems sufficient for now – and, indeed, the only one available.

[5] For fuller descriptions of these and other features of the Big Picture School design, see Essay 1, or consult the Big Picture Company website at www.bigpicture.org. Another helpful resource is the book about the Met, the Big Picture school in Providence (See Levine, 2002).

[6] The book was called *Doc: The Story of Dennis Littky and His Fight for a Better School* (Kammraad-Campbell, 1989), while the NBC movie was entitled more ominously *A Town Torn Apart*.

[7] McDonald (1993, 1996) calls warm perspectives appreciative - often arising from an effort to get very close to the phenomenon described, trying to believe in it; and cool perspectives critical - often achieved by "stepping back" and other distancing techniques, and by the deliberate cultivation of doubt.

[8] BP recently announced that it was severing its ties with the original developer of BP Online, and would contract with a new developer.

[9] The ATLAS Project is one of the original New American Schools projects – a collaboration of the Coalition of Essential Schools, the School Development or Comer Project, Project Zero, and the Education Development Center. See McDonald, et al., 1999.

[10] In characterizing *Here, Thayer, and Everywhere*, one of the authors of this essay (McDonald) draws on previous research. During the program's run, he was engaged in a

study of school reform efforts in a dozen reform-minded schools, one of which was Thayer High School. See McDonald, 1996.