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The Computer Clubhouse: Technological Fluency in the Inner City

Mitchel Resnick, MIT Media Laboratory
Natalie Rusk, Science Museum of Minnesota
Stina Cooke, The Computer Museum

Computer Clubhouse Home Page

Prelude

Mike Lee never cared much for school. His true passion was drawing. He filled up notebook after notebook with sketches of cartoon characters. At age 17, Mike dropped out of high school. But he continued to draw on his own and to help kids at a local elementary school learn how to draw.

A year or so later, Mike's mother was participating in a teachers' workshop at The Computer Museum in downtown Boston. She mentioned to the staff that her son was artistically talented, but she was worried because he was unemployed and not using his talents. They told her about the Computer Clubhouse, a new after-school center where inner-city youth could work on computer projects. They said the Clubhouse needed volunteers and suggested that she encourage Mike to apply. Mike was skeptical. "I had never touched a computer before," he remembers now. "I didn't think of them at all." Mike's mother argued that volunteering at the Computer Clubhouse—and learning to use computers—might lead to a good job. Mike shrugged: "Whatever."

On Mike's first visit to the Clubhouse, staff member Noah Southall showed him how to use a digital camera to capture one of his comic-book drawings on the computer. Then, he learned how to use PhotoShop to color in the drawing. Noah asked Mike to become the first official Clubhouse "mentor." For the next two years, Mike came to the Clubhouse regularly. "At least four days a week," he says.

Access is Not Enough

Ever since the personal computer was invented in the late 1970s, there have been concerns about inequities in access to this new technology (e.g., Piller, 1992). In an effort to address these inequities, some groups have worked to acquire computers for inner-city schools. Other groups have opened community-access centers, recognizing that schools are not the only (or necessarily the

best) place for learning to occur. At these community-access centers, members of inner-city communities (youth and adults alike) can use computers at little or no charge.

The Computer Clubhouse (organized by The Computer Museum in collaboration with the MIT Media Laboratory) grows out of this tradition, but with important differences. At many other centers, the main goal is to teach youth basic computer techniques (such as keyboard and mouse skills) and basic computer applications (such as word processing). The Clubhouse views the computer with a different mindset. The point is not to provide a few classes to teach a few skills; the goal is for participants to learn to express themselves *fluently* with new technology.

Technological fluency means much more than the ability to use technological tools; that would be equivalent to understanding a few common phrases in a language. To become truly fluent in a language (like English or French), you must be able to articulate a complex idea or tell an engaging story—that is, you must be able to "make things" with language. Analogously, our concept of technological fluency involves not only knowing how to use technological tools, but also knowing how to construct things of significance with those tools. A technologically fluent person should be able to go from the germ of an intuitive idea to the implementation of a technological project (Papert & Resnick, 1995). Increasingly, technological fluency is becoming a prerequisite for getting jobs and participating meaningfully in our society.

The Computer Clubhouse aims to help inner-city youth gain that type of technological fluency. The Computer Clubhouse is designed to provide inner-city youth with access to new technologies. But access alone is not enough. The Clubhouse is based not only on new technology, but on new ideas about learning and community. It represents a new type of learning community—where young people and adult mentors work together on projects, using new technologies to explore and experiment in new ways.

During its first two years of operation, the Clubhouse attracted more than 1000 young people ages 10-16, with 98% coming from underserved communities. Participants were from diverse cultural backgrounds, including African American (61%), Asian (13%), and Latino (11%). To attract participants, the Clubhouse initially established connections with community centers and housing projects in target communities; since then, it has relied primarily on word of mouth. Youth do not have to sign up for time at the Clubhouse; they can "drop in" whenever the Clubhouse is open.

At the Clubhouse, young people become designers and creators—not just consumers—of computer-based products. Participants use leading-edge software to create their own artwork, animations, simulations, multimedia presentations, virtual worlds, musical creations, Web sites, and robotic constructions.

The Mike Lee Style

At the Clubhouse, Mike Lee developed a new method for his artwork. First, he would draw black-and-white sketches by hand. Then, he would scan the sketches into the computer and use the computer to color them in. His work often involved comic-book images of himself and his friends (Figure 1).

Over time, Mike learned to use more advanced computer techniques in his artwork (Figure 2). Everyone in the Clubhouse was impressed with Mike's creations, and

other youth began to come to him for advice; many mimicked his approach. Before long, a collection of "Mike Lee style" artwork filled the bulletin boards of the Clubhouse (Figure 3). "It's kind of flattering," says Mike.

Mike took his responsibility as a mentor seriously. For example, he decided to stop using guns in his artwork, feeling that it was a bad influence on the younger Clubhouse members. "My own personal artwork is more hard core, about street violence. I had a close friend who was shot and died," Mike explains. "But I don't want to bring that here. I have an extra responsibility. Kids don't understand about guns; they think it's cool. They see a fight, it's natural they want to go see it. They don't understand. They're just kids."

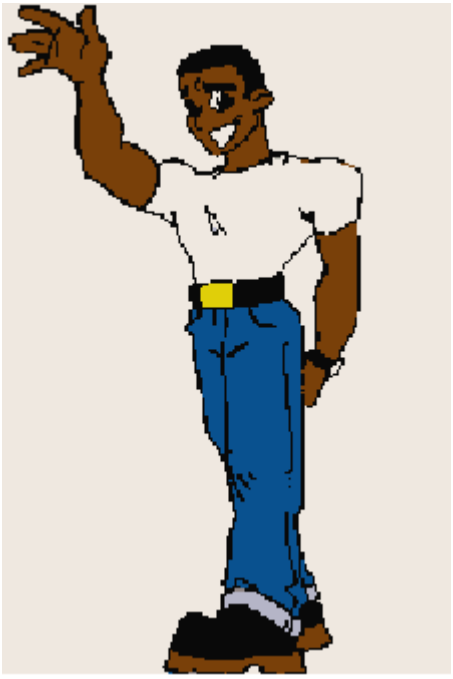

Figure 1

Figure 2

Figure 3

Clubhouse Principles

Computers, software, and networking do not, by themselves, lead to the development of technological fluency. In creating the Clubhouse, we needed to consider not only new technologies, but also new forms of social interaction, new types of activities, new areas of knowledge, and new attitudes towards learning. In the following sections, we discuss four core principles that guided the development of the Clubhouse. These principles span multiple dimensions: social, pedagogical, technological, epistemological, and emotional. In creating new learning environments, all of these dimensions are important.

Principle 1: Support Learning through Design Experiences

Activities at the Clubhouse vary widely, from constructing and controlling LEGO robots to orchestrating virtual dancers. But these varied activities are based on a common framework: engaging youth in learning through design.

In recent years, a growing number of researchers and educators have argued that design projects provide rich opportunities for learning (e.g., Harel, 1991; Papert, 1993; Lehrer, 1993; Soloway, Guzdial, & Hay, 1994). There are many reasons for this interest in design-based learning:

- Design activities engage youth as *active participants*, giving them a greater sense of control (and responsibility) over the learning process, in contrast to traditional school activities in which teachers aim to "transmit" new information to the students.

- Design activities encourage *creative problem-solving*, avoiding the right/wrong dichotomy prevalent in most school math and science activities, suggesting instead that multiple strategies and solutions are possible.

- Design activities can facilitate *personal connections* to knowledge, since designers often develop a special sense of ownership (and caring) for the products (and ideas) that they design.

- Design activities are often *interdisciplinary*, bringing together concepts from the arts, math, and sciences.

- Design activities promote a *sense of audience*, encouraging youth to consider how other people will use and react to the products they create.

- Design activities provide a context for *reflection and discussion*, enabling youth to gain a deeper understanding of the ideas underlying hands-on activities.

This emphasis on design activities is part of a broader educational philosophy known as *constructionism* (Papert, 1993). Constructionism is based on two types of "construction." First, it asserts that learning is an active process, in which people actively construct knowledge from their experiences in the world. People don’t *get* ideas; they *make* them. (This idea is based on the *constructivist* theories of Jean Piaget.) To this, constructionism adds the idea that people construct new knowledge with particular effectiveness when they are engaged in constructing personally-meaningful products. They might be constructing sand castles, LEGO machines, or computer

programs. What's important is that they are actively engaged in creating something that is meaningful to themselves or to others around them.

At the Clubhouse, construction takes many forms. Rather than playing computer games, Clubhouse participants create their own computer games. And rather than just "surfing" on the Internet's World Wide Web, participants make waves: they create their own multimedia Web pages, such as the Clubhouse's Online Art Gallery.

To support these activities, the Clubhouse provides a variety of design tools, from introductory paint programs (such as KidPix) to high-end animation tools (such as Macromedia Director). Other software tools include: digital music recording, editing, and mixing tools; desktop publishing tools; programming tools (such as Microworlds Logo); virtual-reality design tools for developing three-dimensional models on the computer screen; and construction kits for creating and controlling robotic machines (such as LEGO Control Lab). The Clubhouse also serves as a testbed for new technologies under development at research universities and companies. For example, the Clubhouse was the initial test site for the Programmable Brick, a portable computer built into a LEGO brick, developed at the MIT Media Lab (Sargent, Resnick, Martin, & Silverman, 1996).

At the Clubhouse, youth learn how to use these tools. But even more, they learn how to express themselves through these tools. They learn not only the technical details, but the heuristics of being a good designer: how to conceptualize a project, how to make use of the materials available, how to persist and find alternatives when things go wrong, and how to view a project through the eyes of others. In short, they learn how to manage a complex project from start to finish.

In creating the Clubhouse, we decided to focus not just on any design activities, but primarily on *computer-based* design activities. Why? For one thing, computers are now an important part of children's culture. As a result, computer-based activities are likely to connect with children's passions, imaginations, and interests.

Just as importantly, computers have the potential to engage youth in new types of mathematical and scientific thinking. It is not our approach to use computers to "teach" mathematical and scientific ideas explicitly. Rather, we have shown that certain computer-based activities engage youth in mathematical or scientific thinking as a natural, integral part of the activity itself. For example, as Clubhouse youth use Programmable Bricks to build and program "robotic creatures," they begin to think about the similarities and differences between animals and machines. Are their LEGO creatures like animals? Or like machines? They compare the robots' sensors to animal senses, and they discuss whether real animals have "programs" like their robots. In the process, they develop intuitions about feedback—a scientific concept traditionally taught at the university level. Programmable Bricks make the concept accessible to a much broader (and younger) audience.

Online Art Gallery

Mike Lee began working with others at the Clubhouse on collaborative projects. Together, they created an Online Art Gallery on the World Wide Web. Once a week, they met with a local artist who agreed to be a mentor for the project. After a year, their online art show was accepted as an exhibition at SIGGRAPH, the premiere computer-graphics conference.

As Mike worked with others at the Clubhouse, he began to experiment with new artistic techniques. He added more computer effects, while maintaining his distinctive style. For example, he began working on digital collages combining photographs and graphics (Figures 4 and 5).

Figure 4

Figure 5

Principle 2: Help Youth Build on their Own Interests

In schools of education, the focus is usually on methods of teaching, not motivations for learning. Many courses emphasize how and what teachers should teach, but seldom examine why their students might want to learn. When the issue of motivation is addressed, the emphasis is often on extrinsic motivators and incentives, such as grades and prizes based on performance.

Yet if you look outside of school, you can find many examples of people learning—in fact, learning exceptionally well—without explicit "rewards." Youth who seem to have short attention spans in school often display great concentration on projects that they are truly interested in. They might spend hours learning to play the guitar or play basketball. Clearly, youth interests are a great untapped resource. As Roger Schank has written: "An interest is a terrible thing to waste" (Schank, 1994).

When youth care about what they are working on, the dynamic of teaching changes. Rather than being "pushed" to learn, youth work on their own, and seek out ideas and advice. Youth are not only more motivated but they also develop deeper understandings and richer connections to knowledge. At first, some youth interests might seem to be trivial or shallow, but youth can build up large networks of knowledge related to their interests. Pursuing any topic in depth can lead to connections to other subjects and disciplines. The educational challenge is to find ways to help youth make those connections and develop them more fully. For example, an interest in riding a bicycle can lead to investigations of gearing, the physics of balancing, the evolution of vehicles over time, or the environmental effects of different transportation modes.

The Clubhouse is designed to support youth in developing their interests. While youth from middle-class households generally have many opportunities to build on their interests (music lessons, specialty camps, and so on), the target audience of the Clubhouse has few such opportunities. For most Clubhouse participants, there are no other constructive after-school options. And many do not even have a clear sense of their interests, let alone how to build on them.

Clubhouse participants are encouraged to make their own choices. Just coming to the Clubhouse involves a choice: all of the youth at the Clubhouse have chosen to be there, and they can come and go as they please. Once inside the Clubhouse, participants continually confront choices on what to do, how to do it, and whom to work with. The Clubhouse helps these youth gain experience with self-directed learning, helping them recognize, trust, develop, and deepen their own interests and talents.

Helping youth develop their interests is not just a matter of letting them do what they want. Young people must be given the freedom to follow their fantasies but also the support to make those fantasies come to life. On the walls, shelves, and hard drives of the Clubhouse, there is a large collection of sample projects, designed to provide participants with a sense of the possible and with multiple entry points for getting started. In one corner of the Clubhouse is a library of books, magazines, and manuals filled with more project ideas (and a sofa to make reading more comfortable). Many youth begin by mimicking a sample project, then work on variations on the theme, and soon develop their own personal path, stemming from their personal interests.

This approach works only if the environment supports a great diversity of possible projects and paths. The computer plays a key role here. The computer is a type of "universal machine," supporting design projects in many different domains: music, art, science, math. At any time, a pair

of youth might be using a computer to create a graphic animation, while at the next computer another participant might be using a similar computer to control a robotic construction.

Of course, the technology alone does not ensure diversity. In schools, more teachers are beginning to include design experiences in their classroom activities. But in many cases, these design activities are very restrictive. Students do little more than follow someone else's "recipe." In classes working with LEGO/Logo (a computer-controlled construction kit), students are often told precisely how and what to build. For example, a teacher might instruct every student to build the exact same LEGO car, using the same bricks, same gears, same wheels, and the same computer program to control it. The Clubhouse takes a very different approach; it has the feel of an invention workshop. In working with LEGO/Logo, Clubhouse youth have built, programmed, and experimented with a wide assortment of projects, from an automated hair curler to a computer-controlled LEGO city. The LEGO materials and computer technology allow this diversity—even more important, the Clubhouse community supports and encourages it.

Projects at the Clubhouse

As Mike Lee focused on his artwork, other Clubhouse youth were developing their own projects.

Emilio saw a laser-light show at a science museum, and decided to design something similar at the Clubhouse. He glued small mirrors onto a few LEGO motors, wrote a short computer program to control the motion of the motors, and bounced a laser light off of the mirrors to create dynamic, dancing patterns of light. The project engaged Emilio in mathematical thinking as he modified angles and speeds to create new laser patterns.

A group of fourth-grade girls came to the Clubhouse to try out the new programmable-brick technology developed at MIT. They spent several sessions discussing what to build. They decided to create a "city of the future"; they built and programmed elevators, buses, and even a tour guide for the city. The girls, who came from a bilingual class at school, programmed the tour guide to give information in both English and Spanish. They proudly named their creation "Nine Techno Girls City."

Marcus, a ninth grader, began designing and programming computer games at school. He came to the Clubhouse to learn to develop more sophisticated games, and received help from Paul, a student at Wentworth Institute of Technology. Paul showed him how to program in C, a professional programming language that Marcus had wanted to learn. Marcus's work attracted the interest of other Clubhouse participants—and he, in turn, helped other youth learn to design and program their own games.

Principle 3: Cultivate "Emergent Community"

How do people become fluent in a natural language? It is now common wisdom that people learn French much better by living in Paris than by taking French classes in school (Papert, 1980). Many American students take several years of French class in high school, but still can't communicate

fluently in the language. The language is learned best by living in the culture, by going to the store to buy a baguette, by joking with the vendor who sells Le Monde, by overhearing conversations in the café, by interacting with people who know and care about the language.

For young people to become technologically fluent, they need a similar type of immersion. They need to live in a "digital community," interacting not only with technological equipment, but with people who know how to explore, experiment, and express themselves with the technology.

To foster this type of community, the Computer Clubhouse includes a culturally-diverse team of adult *mentors*—professionals and college students in art, music, science, and technology. Mentors act as coaches, catalysts, and consultants, bringing new project ideas to the Clubhouse. Most mentors volunteer their time. On a typical day, there are two or three mentors at the Clubhouse. For example, engineers might be working on robotics projects with Clubhouse participants, artists on graphics and animation projects, programmers on interactive games. For youth who have never interacted with an adult involved in academic or professional careers, this opportunity is pivotal to envisioning themselves following similar career paths.

In this way, the Clubhouse deals with the "access issue" at a deeper level. In addition to access to new technology, inner-city youth need access to people using technology in interesting ways. This type of access is not possible in a classroom with 30 children and a single teacher. The Clubhouse takes advantage of an untapped local resource, providing a new way for people in the community to share their skills with local youth.

By involving mentors, the Clubhouse provides inner-city youth with a rare opportunity to see adults working on projects. Mentors do not simply provide "support" or "help"; many work on their own projects and encourage Clubhouse youth to join in. John Holt argued that children learn best from adults who are working on things that they themselves care about. As Holt wrote: "I'm not going to take up painting in the hope that, seeing me, children will get interested in painting. Let people who *already* like to paint, paint where children can see them" (Holt, 1977).

At the Clubhouse, youth also get a chance to see adults *learning*. In today's rapidly-changing society, perhaps the most important skill of all is the ability to learn new things. It might seem obvious that youth, in order to become good learners, should observe adults learning. But that is rarely the case in schools. Teachers often avoid situations where students will see them learning: they don't want students to see their lack of knowledge. At the Clubhouse, youth get to see adults in the act of learning. For some Clubhouse participants, it is quite a shock. Several of them were startled one day when a Clubhouse staff member, after debugging a tricky programming problem, exclaimed: "I just learned something!"

Projects at the Clubhouse are not a fixed entity; they grow and evolve over time. A mentor might start with one idea, a few youth will join for a while, then a few others will start working on a related project. For example, two graduate students from Boston University decided to start a new robotics project at the Clubhouse. For several days, they worked on their own; none of the youth seemed particularly interested. But as the project began to take shape, a few youth took notice. One decided to build a new structure to fit on top of the robot, another saw the project as an opportunity to learn about programming. After a month, there was a small team of people working on several robots. Some youth were integrally involved, working on the project every day. Others chipped in from time to time, moving in and out of the project team. The process allowed different youth to

contribute to different degrees, at different times—a process that some researchers call "legitimate peripheral participation" (Lave and Wenger, 1991).

This approach to collaboration is strikingly different from what occurs in most school classrooms. In recent years, there has been a surge of interest among educators in "collaborative learning" and "communities of learners." In many schools, students work in teams to solve problems. Often, each student is assigned a distinct role in the collaborative effort. At the Clubhouse, collaboration has a different flavor. No one is assigned to work on any particular team. Rather, communities "emerge" over time. Design teams form informally, coalescing around common interests. Communities are dynamic and flexible, evolving to meet the needs of the project and the interests of the participants (Resnick, 1996). A large green table in the middle of the Clubhouse acts as a type of village common, where people come together to share ideas, visions, information, and even food.

As youth become more fluent with the technologies at the Clubhouse, they too start to act as mentors. During the first year of the Clubhouse, a group of six youth emerged as "regulars," coming to the Clubhouse nearly every day (even on days when the Clubhouse was officially closed). Over time, these youth began to take on more mentoring roles, helping introduce newcomers to the equipment, projects, and ideas of the Clubhouse.

Learning about Learning

As he worked at the Clubhouse, Mike Lee clearly learned a lot about computers and about graphic design. But he also began to develop his own ideas about teaching and learning. "At the Clubhouse, I was free to do what I wanted, learn what I wanted," says Mike. "Whatever I did was just for me. If I had taken computer courses [in school], there would have been all those assignments. Here I could be totally creative."

Mike's own learning experiences have influenced how he mentors others at the Clubhouse. "It's more important to make them comfortable rather than pushing them to do things," he explains. If they're comfortable, "then they'll do things on their own. I just try to be friends with them." When someone new comes into the Clubhouse, Mike makes sure to include them in the community. "If I'm telling someone I know there a joke, I'll include the new kids in it too. Make them aware that I know they're there."

Mike remembers—and appreciates—how the Clubhouse staff members treated him when he first started at the Clubhouse. They asked him to design the sign for the entrance to the Clubhouse, and looked to him as a resource. They never thought of him as a "high-school dropout" but as an artist.

Principle 4: Create an Environment of Respect and Trust

When visitors walk into the Clubhouse, they are often amazed at the artistic creations and the technical abilities of Clubhouse participants. But just as often, they are struck by the way Clubhouse youth interact with one another. Indeed, the Clubhouse approach puts a high priority on developing a culture of respect and trust. These values not only make the Clubhouse an inviting place to spend

time, but they are essential for enabling Clubhouse youth to try out new ideas, take risks, follow their interests, and develop fluency with new technologies.

There are many dimensions to "respect" at the Clubhouse: respect for people, respect for ideas, respect for the tools and equipment. Mentors and staff set the tone by treating Clubhouse youth with respect. Right from the start, participants are given access to expensive equipment and encouraged to develop their own ideas. "You mean I can use this?" is a common question for youth to ask when they first visit the Clubhouse and find out about the resources and options available to them.

Even with all these options, youth won't take advantage of the opportunities unless they feel "safe" to try out new ideas. In many settings, youth are reluctant to do so, for fear of being judged or even ridiculed. At the Clubhouse, the goal is to make participants feel safe to experiment and explore. No one gets criticized for mistakes or "silly" ideas.

Youth are given the time they need to play out their ideas; it is understood that ideas (and people) need time to develop. One new Clubhouse participant spent weeks manipulating a few images, over and over. But then, like a toddler who is late learning to talk but then starts speaking in full sentences, he suddenly started using these images to create spectacular graphic animations.

Clubhouse youth are given lots of freedom and choice. One participant explained why he liked the Clubhouse more than school: "There's no one breathing down your neck here." But with this freedom come high standards and high expectations. Clubhouse staff and mentors do not simply dole out praise to improve the "self esteem" of the youth. They treat youth more like colleagues, giving them genuine feedback, and pushing them to consider new possibilities. They are always asking: What could you do next? What other ideas do you have?

Many Clubhouse youth are learning not only new computer skills, but new styles of interaction. Clubhouse youth are treated with respect and trust—and they are expected to treat others the same way.

The Real World

After several years of volunteer work at the Clubhouse, Mike Lee earned his high-school equivalency diploma, then landed a full-time job as a graphic designer at a major high-technology company near Boston. He now designs graphics for the company's Web pages, stationery, catalogs, and brochures (Figure 6). "I like the job better than I thought I would," says Mike. "At first, I thought I would be stuck in a tie sitting in a box."

Mike's artwork still has the same distinctive style, but he is more fluent expressing himself with computational media. In describing his current work, Mike talks about "dither nightmares" and "anti-aliasing problems"—ideas that would have seemed alien to him a few years ago. He says his artwork is "ten times better than last year." Mike's work style has changed too. For one thing, he now relies on manuals when he gets stuck on a problem. "I never used to use manuals at the Clubhouse. I used to just hack away," explains Mike. "But I didn't have deadlines back then."

Figure 6

Tools for Thought

When people think about thinking, they often imagine Rodin's famous sculpture The Thinker. Rodin's Thinker is a solitary thinker, sitting by himself, with his head resting on his hand. This image seems to say: if you just sit by yourself quietly, and concentrate hard, you will do your best thinking.

But that image provides a very restricted view of thinking—and one that is becoming less and less relevant in today's digital world. In recent years, there has been a growing recognition that thinking usually happens through *interactions*—interactions with other people and interactions with media and technologies. New media and technologies support new representations of knowledge, which in turn enable new ways of thinking about problems.

The Clubhouse helps young people become fluent with these new "tools for thought." Two product managers from Adobe, a leading software company, spent several days at the Clubhouse, hoping to gain insights on how they might change and improve their products. Afterwards they wrote (Mashima, 1994):

> We were amazed at the incredible rate the kids learned complex products such as Photoshop and Director and how they used the software almost as an extension of themselves. The kids seem to have a lot more enthusiasm and creativity in the work since they choose their own projects and determine for themselves what they want to do. I liked how the more experienced members trained the new members how to do things and how they took responsibility for the computers and their setups. Clearly the Clubhouse is their clubhouse, not someone else's place.

Their comments capture some of the core ideas underlying the Clubhouse approach: young people working on design projects, following their own interests, developing fluency with new technologies, sharing knowledge as a member of a community, and becoming self-confident as learners.

Of course, creating this type of learning environment isn't easy. At times, the Clubhouse might seem chaotic. It takes trust and patience to allow youth to follow their own interests and learn from their experiences. But the Clubhouse should not be seen as an unstructured environment: although youth have great freedom in choosing their projects, there is structure embedded in the design of the materials, space, and community. Through its choice of mentors, sample projects, and software tools, the Clubhouse provides a framework in which rich learning experiences are likely to develop.

The long-term goal is to make these types of experiences available to youth in low-income neighborhoods across the country. Several more Computer Clubhouses are already under development. Youth at different Clubhouses will collaborate on joint design projects through the Internet, and mentors and staff will share ideas across sites. Ideally, these new Clubhouses will serve as models, sparking people to rethink their notions of technology, learning, and community.

Many previous technology-and-learning projects have fallen short of expectations. The Logo programming language, pioneered at MIT during the 1970s, spread to tens of thousands of schools in the 1980s. But as it spread, Logo experienced what Seymour Papert has called "epistemological dilution." It was used very differently than the designers of the language had intended, and results were disappointing in many schools.

It is now clear that technological tools themselves, no matter how well they are conceived and designed, are not enough. As new Clubhouses open, the ultimate challenge will be to disseminate not only the technology, but also the principles, philosophy, and spirit of the original Clubhouse.

Coda

Recently, Mike Lee was hired as a Clubhouse manager on Saturdays (in addition to his full-time job during the week). For Mike, it's an opportunity to help others achieve what he has achieved. "I wouldn't have had the opportunities I've had without this [the Clubhouse]," explains Mike. "I had no direction. I don't know what I'd be doing now. I hadn't finished school. I see kids with lots of talent. I want them to have the same chance I've had." Quietly but proudly, Mike says: "I'm on my own now." He realizes that he is a role model for others. "They see, if you work at it, you could be where I am."

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