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A Place for the Future

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The goals for this volume were quite ambitious because we wanted to provide a better understanding of the Computer Clubhouse as an idea and as a space for learning. Our choice of words is intentional because “a space for” means that each Computer Clubhouse is precisely designed, despite the fact that this might not be obvious at first glance. From the green table and chairs on rollers to the evaluation efforts, much thought has been put into creating spaces that provide safe haven for creativity and community building—two activities that support each other in beneficial ways. Most important, the “idea” part of the Computer Clubhouse was to create an embodiment of a constructionist learning culture, to bring the idea of learning by designing to fruition. Some may argue this is easier to achieve in informal spaces than in schools, but we hope the chapters in this book provide evidence that much support and, yes, design go into developing and sustaining these efforts.

One way to shine light on the Clubhouse learning model was to select different lenses that would allow us to talk about the Clubhouse members’ creative projects. We wanted to showcase the kind of learning that happens in the Clubhouse and is so relevant to youths’ intellectual and social development, but is rarely provided in school. Our purpose was to illustrate the kind of design processes and how they address critical twenty-first-century learning skills by fostering creativity, technology fluency, and critical stances in using, designing, and performing with digital media. Our list of the multiple productions that Clubhouse youth are engaged in is by no means exhaustive; we provided glimpses into everyday Clubhouse activities.

We also wanted to give credence to the crucial role of community that the Clubhouse Network exemplifies on multiple levels: in the way that peer expertise is shared within a Clubhouse community, how mentors not only contribute but also learn in Clubhouses, and how intranets, like the Village, foster a sense of global community among the 100+ Clubhouses. This community supported by coordinators, Clubhouse Network geographic liaisons, and community organizations illustrates how design activities can connect youth across the globe.

Finally, each organization needs to undergo continuous processes of self-reflection and engagement to understand its impact and features in need of change. The Clubhouse Network has conducted these self-studies on multiple levels, from examining individual Clubhouse cultures and participation across the network to generating programs that are sensitive to equitable participation, such as the Girls’ Day effort.

REFLECTIONS ON THE LEARNING MODEL

Amidst the proliferation of after-school programs and community technology centers, the Clubhouse learning model occupies a unique and much needed niche. Perhaps most important, the Clubhouse learning model emphasizes creativity with digital media. Today, there is much recognition that creativity will drive society's development and growth, but that schools often fail students in this respect, in particular those from underserved communities. By contrast, the Clubhouse Network creates a global community of designers. The Village supports Clubhouse members' interests in media, like the popular networking site, MySpace, and video-sharing site, YouTube. In addition, the Village fosters an exchange and discussion of ideas and design projects across borders.

Finally, the Clubhouse is also part of a larger effort to develop new constructionist technologies. Its close connection to research groups at the MIT Media Lab has provided fertile partnerships. In the chapters of this book, several examples for new technology designs, such as the Pearls of Wisdom, Scratch, or Hook-ups, illustrated that educational technologies can and need to be designed for informal contexts, as most efforts have focused on classrooms and schools. Here, the Clubhouse's departure from traditional after-school programs and community technology centers is most obvious. Given that the Clubhouse culture is dedicated to supporting youth in design of new technology applications, being part of the development process is a natural and fruitful extension.

We might take the features of the Computer Clubhouse learning model for granted now, but at the time when it was founded, many features were new and continue to be unique. The work presented in the book provides counter narratives of technology use and design by disenfranchised youth. It illustrates that it is possible to create a learning culture where technology design and use can be culturally and academically relevant at the same time. Participation in the twenty-first century is more than just knowing how to use technology; it is also about knowing how to design with technology. This is at the core of the Clubhouse learning model.

Still, becoming tech-savvy is not the only goal of the Computer Clubhouse. In fact, many coordinators see preparing youth for leadership in their lives and community as equally valuable goals. Rather than teaching about leadership, Clubhouse projects situate youth in roles allowing them to be in charge of their own learning, developing and realizing their ideas, problem solving and persevering, and recruiting support and feedback. The Clubhouse not only puts members in charge of their own learning, but also places them in charge of teaching others and providing leadership within the Clubhouse community. Thus, the Computer Clubhouse provides a case in point that marginalized youth can be entrusted with sophisticated and expensive equipment, can become designers rather than users of technology, and in the process can develop perspectives for their futures.

ACCESS AND EQUITY

Prior discussions about the Digital Divide have evolved as costs of new technologies have plummeted and recent reports (Lenhart, et al., 2005; Roberts et al., 2005)

have documented that access to computing technologies at home has become widespread across the United States, albeit with differing degrees of saturation. In the United States, the attention has shifted from the Digital Divide to the participation gap. The participation gap captures the growing distance between youth who know how to use technology for browsing the Internet and gaming and those who know how to employ technology toward more creative and expressive ends (Jenkins, Clinton, Purushotma, Robinson, & Weigel, 2006; Warschauer, 2004). Having creative and technical skills allows youth to participate in digital culture.

However, the Clubhouse model continues to endure and flourish here in the United States and in other parts of the world where access to technology is not the most pressing issue. What does this mean for our evolving understanding of the Digital Divide or the participation gap? In the United States, the longevity of the model speaks to what's still not available to youth: access to creative technologies in a collaborative learning setting. In part, this is due to the expense of many professional software packages. Fred Riedel, the Computer Clubhouse coordinator in Harlem, New York, has observed that these types of creative learning opportunities do not even exist in elite private schools, but especially not in Internet cafés.

Furthermore, having access to such creative tools, even the Clubhouse community is often not enough to draw youth into design work (Chapman, 2004; Peppler & Kafai, 2008a). As previous chapters demonstrate, the success of the Clubhouse learning model is largely due to the mentors and occasional instructional workshops that support creative production in the Clubhouse Network (Kafai, Desai, et al., 2008; Kafai et al., 2007; Peppler & Kafai, 2008a). Creating spaces supportive of creative work is a challenge shared by schools, after-school communities (such as Boys and Girls Clubs and local libraries), and youth working at home alone (Sefton-Green & Buckingham, 1998), which could all benefit from some of the lessons learned at the Computer Clubhouse for promoting constructionist learning.

FUTURE OF THE COMPUTER CLUBHOUSE NETWORK

As the Clubhouse Network continues to expand in the next decade, there are many plans to move forward and address the changing needs of its members. Several programs are on the cusp of a full-scale rollout, and Network staff have many ideas for the more distant future of the Network. As the vision for the original Computer Clubhouse continues to scale and expand, there are several new and exciting directions in which it could grow, some of which came up in our interviews with Network staff and Clubhouse coordinators featured in Chapter 3 and discussed here.

In general, there is a continuing vision to expand the Clubhouse Network to incorporate new locations across the globe and offer a growing number of youth access to creative design technologies. In order to do so effectively, there are several strategies the Clubhouse Network can envision. First, several of the Network staff discussed that it would be ideal to open new Clubhouses in clusters within a small geographic region. This is for several practical reasons, but would allow youth to communicate with others who speak the same native language, facilitate

travel between Clubhouses as well as face-to-face collaboration. As Gail Breslow, the director of the Computer Clubhouse Network states, "Right now, we have these island Clubhouses with none around them. I would like to change that. For example, we have one Clubhouse in Russia. That's a fixed cost, of course, so leveraging that fixed cost (or amortizing it) is important." The Clubhouse Network is now in a crucial point in its development: It's large enough to impact substantial groups of youth across the globe but is small enough to still maintain the close-knit family feel.

At the current time several existing international educational technology programs are interested in folding their programs into the Clubhouse Network. This would present new opportunities for rapid growth, adding hundreds of Clubhouses to the Network at one time. However, as Patricia Díaz from the Clubhouse Network points out,

We've grown so much in the past 10 years, and if we want to grow in the same way in the next 10 years, an increase in number of Clubhouses would make a big difference in what would happen with the existing model. I think a network of a hundred Clubhouses is still a network where everybody knows everybody; where it's very personal; where a team of 10 people can support the whole network. If we were to grow tenfold, the existing model would have to change because then we're talking about thousands of Clubhouses. At some point, you lose that personal level and a sense of everybody knowing everybody."

Finding new models and ways to support continued collaboration would be an ongoing challenge in cases such as this, perhaps placing central the role of the Clubhouse Village site as well as smaller regional meetings.

As the Clubhouse continues to grow, Network staff is committed to continuing connections with Clubhouse alumni to create a vast social network of past and current members. Currently, there are several initiatives to connect alumni through existing social networking sites. And what Brenda Abanavas would like to see more of in the future is "an almost natural turnover so that the young people who grow up in the Clubhouse are in some way still a vital part of the Clubhouse Network. That can either take the form of some of them coming back as Clubhouse coordinators, which we certainly have had, but also by being involved in whatever capacity that they are able to give back. They could create internships for young members, be guest speakers, or return as a volunteer." In this way, new connections can be forged between past and present members.

One of the other hopes for the Network, as network staff Jeff Arthur says, is to become "a household name where you entrust your kids, where colleges can look at Clubhouse on somebody's application, and say, 'Oh, you went to a Computer Clubhouse. You're in!'" By having alumni return to help guide the newest generation of members and by increasing the renown of the network, the hope would be that the Clubhouse could increase the impact that it has on opening doors for the future of its youth.

In addition to thinking about greater involvement of alumni in growing the capacity of current Clubhouse, several of the Clubhouse coordinators have been

thinking about how to service a wider range of community members, such as parents, schools, and other adults in the community. As Clubhouse coordinator Almetris Stanley relays, "I really see working with more schools in the community and the Clubhouse being a field trip destination. I could imagine having the Clubhouse experience on wheels. Everybody can't fit in here but we could come to you and we could do some innovative Clubhouse activities at your site. I see us growing to serve more kids, being a resource for the schools and other community-based organizations as well." By doing so, individual Clubhouse sites could increase the scope of services offered to the community, widening the impact of and exposure to the Clubhouse learning model.

As members become more advanced, some of the Clubhouses have begun to think about tying the Clubhouse to other academic instruction to prepare youth to enter math, science, and engineering fields. As Clubhouse coordinator Luversa Sullivan observes,

What has happened here at our Clubhouse is that members don't leave. So at some point, making Flash animations and movies, audio, and even Scratch gets to be kind of the old tool. They become so fluent with it that they have to start using those tools in different ways. What we've done is we have expanded the Clubhouse program into what we call our Clever Program, which is for advanced students who are interested in math, science, and engineering. They go on to the Clever Program and they use different tools to help teach the entire Clubhouse community.

All of the aforementioned directions indicate a vital future for the Clubhouse Network as it expands in new ways. While there is surely room for more Computer Clubhouses, other options might be to promote the introduction of "Clubhouse-like ideas," as Network director Gail Breslow calls them, "to others, whether it's schools with extended-day programs or community technology centers that might not have the resources or the wherewithal to start full Clubhouses." She brings up the example of Colombia, which, as a country, has invested in setting up "mini Internet sites that are not being really well utilized. They're not Clubhouses, but there are ways to have little Clubhouse activities going on in there and can we help either by consulting to governments or consulting to Ministries of Education." The coming years will show in which directions these ideas will take off, in particular with the growing interest in after-school programs and recognition of their benefits for youth development.

CLUBHOUSE MEMBERS ARE THE FUTURE

We want to close this book in the way we started it—with the Clubhouse members—who are not only the reason that Clubhouses were started but also the driving forces in them. Their successes are the most important outcome measure of the Computer Clubhouse. What is most evident are the enduring lessons, related to work, education, and life, that members take from their Clubhouse experiences. When members, both past and present, speak of their futures they all find connec-

tions between Clubhouse activities and relationships and their own personal successes. These young women and young men are bringing their Clubhouse lessons into their futures.

If not for the Computer Clubhouse, I would not have gone to college. I was confused about what I wanted and unaware of the opportunities. Clubhouse staff and mentors opened my eyes to career options with art, sparked my interest in learning, and gave me direction.

—Guillermo, age 21

The most valuable thing I've learned at the Clubhouse is to create myself. The Clubhouse really showed me what I was capable of doing and helped me get started. Now I want to be an engineer because I'm able to design things in my own unique way, with my own ideas. The Clubhouse made me unafraid to make mistakes and try new things.

—Amy, age 22

My people skills have grown. A lot of communication and interaction takes place at the Clubhouse. Developing good communication skills is important for survival. Being involved in the Clubhouse, I had to develop them, if I was going to teach and mentor others. I have a better understanding of how to get schoolwork done. I need to stay focused, reach for my goals, and give my best in all that I do.

—Mike, age 18

I decided to become a Clubhouse mentor because I felt that I could be a part of the development and improvement of it in the next years. I was a member for years and I know how important the Clubhouse is. It is important to be a Clubhouse mentor because in a sense you are aiding the youth who could be doing nothing with developing skills that could help them in life.

—Tammy, age 19

Whether as members, mentors, coordinators, or whatever paths youth have decided to pursue, the adage known to every member still holds true: "Once a member, always a member." This promise—perhaps the most important of all—is extended to all who enter a Computer Clubhouse.

A photograph showing a group of young people in a computer club. In the foreground, a girl with glasses and a pink shirt is looking at a computer monitor. Behind her, another girl with braids is looking at the same screen. In the background, a boy in a white shirt is also working at a computer. The room is dimly lit, with the glow from the computer screens providing the main light source.

Technology, Education—Connections (The TEC Series)

Edited by **YASMIN B. KAFAI, KYLIE A. PEPPLER, AND ROBBIN N. CHAPMAN**

THE COMPUTER CLUBHOUSE

CONSTRUCTIONISM AND CREATIVITY IN YOUTH COMMUNITIES

Forewords by **BARTON J. HIRSCH AND ROSALIND HUDNELL**

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This book is about the Computer Clubhouse—the idea and the place—that inspires youth to think about themselves as competent, creative, and critical learners. So much of the social life of young people has moved online and participation in the digital public has become an essential part of youth identities. The Computer Clubhouse makes an important contribution not just in local urban communities but also as a model for after-school learning environments globally. This model has been uniquely successful scaling up, with over 100 clubhouses thriving worldwide. Showcasing research by scholars and evaluators that have documented and analyzed the international Computer Clubhouse Network, this volume considers the implications of their findings in the context of what it means to prepare youth to meet the goals of the 21st century.

Book Features:

- A successful, scalable model for providing at-risk youth a rich array of media design and computing experiences.
- Diverse examples of media created in the Clubhouse, ranging from digital stories, video games, interface designs, and digital art projects.
- Color photos of life in the Clubhouse, including youth projects.
- Interviews with stakeholders in the Clubhouse Network, from the director to coordinators at various international clubhouses.

"It is difficult to conceive of an after-school setting that would have a greater emphasis on positive youth development. . . . Beyond learning computer programming, young people at the Clubhouses learn marketable skills in product design, project management, teamwork, marketing, and communication. . . . Read [these chapters], appreciate what has already been accomplished, and consider the exciting possibilities for the future."

—From the Foreword by **Barton J. Hirsch**,
Northwestern University, author of *A Place to
Call Home: After-School Programs for Urban Youth*

"As you will read in this book, the impact of the Computer Clubhouse on underserved youth around the world has been far-reaching, long-lasting, and life-changing."

—From the Foreword by
Rosalind Hudnell, Intel Corporation

"Essential reading for anyone concerned with the development and education of contemporary youth. . . . Its lessons go far beyond the Clubhouse."

—**Michael Cole**, author of *The Fifth Dimension:
An After-School Program Built on Diversity*

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Cover photo by Jae Chung at the Flagship Clubhouse at the Museum of Science, Boston, which is also the global headquarters for the Intel Computer Clubhouse Network.