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Work and Play in the Information Age:

Technology Utilization in Boys & Girls Clubs of America



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Work and Play in the Information Age:

Technology Utilization in Boys & Girls Clubs of America

Joseph Sullivan, Tricia Vander Leest and Andrew Gordon

University of Washington

November 2008



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Introduction

Boys & Girls Clubs of America (BGCA) is a widely-supported, highly-regarded movement made up of more than 4,300 clubs. Celebrating their 102nd anniversary in 2008, the mission of these clubs is “to enable all young people, especially those who need us most, to reach their full potential as productive, caring, responsible citizens.” Boys & Girls Clubs across the country offer a wide range of programs and services that, according to the organization’s website, “promote and enhance the development of boys and girls by instilling a sense of competence, usefulness, belonging and influence.”

In the late 1990s, Boys & Girls Clubs began operating computer labs and integrating technology-related access and learning opportunities into their activities. This report examines these opportunities within the larger contexts of the role of afterschool programs in the US, and of preparing youth for the 21st century workforce. The findings illustrate many ways that specific programs introduce and enhance technical skills, promote Internet savvy and build computer fluency while simultaneously reinforcing core social development outcomes.

The clubs we visited benefit from the centralization and autonomy the BGCA structure facilitates. Through a combination of Club Tech and other national programs geared toward computer access and training, together with local

programs finely tuned to their specific constituents, individual clubs emphasize academic and workplace competencies while building social and nontechnical skills. Clubs emphasize positive relationships with peers and adults, constructive play, leadership opportunities, and creative expression, all within the “safe spaces” that characterize Boys & Girls Clubs. In sampling a variety of students, staff, parents and graduates from clubs selected to represent the range of technology implementations, researchers found broad support for approaches that introduce technical learning while reinforcing social and nontechnical skills widely described as critical to successful participation in 21st century workplaces and society.

The authors and the research team at CIS wish to thank Microsoft Community Affairs for their support of this project, and the Boys & Girls Clubs of America for sharing their time and stories.

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Executive Summary

This report describes and analyzes technology-related access and learning opportunities for children at Boys & Girls Clubs (BGCs)¹ within the larger contexts of the role of afterschool programs in the US, and of preparing youth for the 21st century workforce. The findings illustrate many ways that specific programs introduce and enhance technical skills, promote Internet savvy and build computer fluency while simultaneously reinforcing core social development outcomes.

Background

Successful economic and social participation in the 21st century requires technological access and fluency. With more than 4,300 locations nationwide and an assortment of national and local technology projects, Boys & Girls Clubs are now important access points, particularly for disadvantaged youth. Learning outcomes have already been demonstrated. What is missing at this point is an understanding of the full range of ways that technology is used by BGCs, and how these programs interact with other club goals.

Data & methods

An extensive literature review was coupled with our site visits, interviews, and observations at 38 Boys & Girls Clubs across 15 organizations² in four states, strategically selected to cover a wide range of resource levels and program

architectures. Open-ended interviews were conducted with 86 key actors: 66 BGC program personnel that work directly with youth and 20 executives, administrators or program support staff. We observed and informally interacted with many current and former club members and parents during our time in the clubs.

Findings

This report's findings are organized around five themes that are fundamental to understanding BGC technology usage and the role it plays in clubs.

- 1. Technology is used widely.** This report documents the wide range of uses of technology in the BGCs we visited. Technology in BGCs is used to promote the following kinds of outcomes:
 - General technical skills
 - Application competencies
 - Nontechnical learning
 - Positive socialization, and
 - Improved BGC administration and implementation.
- 2. The BGCA federation successfully leverages its organizational architecture.** Centralized national resources and local autonomy are balanced in such a way as to foster implementation and experimentation in highly varied ways. BGC's federated structure takes advantage of both consistencies across clubs, and of local discretion, making them an effective, scalable service provider. Technology programs benefit from this organizational architecture.
- 3. Technology programs promote learning.** We found evidence of the following ways that technology programs are promoting learning:

1. In this paper, BGCs is the abbreviation for multiple Boys & Girls Clubs. BGCA refers to the national office or the collective movement.

2. Within the BGCA structure, an "organization" refers to a group of clubs. County systems, such as the Boys & Girls Clubs of King County, are "organizations" that are made up of a number of clubs that share common resources.

- Improved fluency, confidence and excitement with technology. Youth are excited and confident learners, especially around digital arts and Internet applications.
- Computers are considered an essential part of “being educated.” Lab directors use the computers instrumentally, to help educate children.
- Club Tech is used as a baseline resource and innovation platform. Many staff report that without this resource they would offer a much smaller array of lessons, at lower quality, to their students.
- Internet access and gaming are highly valued by youth. While they are believed to have important benefits, there is some skepticism over the value of gaming among staff members and parents.
- Digital arts are popular, especially photography, movies, and audio, and are thought to be useful for promoting creativity and expression. Staff members report that the interest in digital arts is also a useful lever for encouraging positive behavior.

4. Technology programs support positive socialization. Technology has become an integral part of BGC’s youth development orientation. Technology infuses and is informed by dynamics that determine its ultimate impact in Boys & Girls Clubs:

- BGCs are physically and psychologically safe spaces for kids, which shapes the way that programs are implemented and valued.
- Practice building positive relationships with adults is a cornerstone of youth development. BGC’s technology programs are staffed with caring adults and volunteers who model positive behavior, share expertise and develop close relationships with club members.
- Constructive play, which is fundamental to happy, healthy childhood development, is woven into the DNA of BGCs. Laughter, teamwork and improvisation are fundamental in BGC computer labs.
- BGCs nurture a virtuous cycle of leadership, good behavior and accomplishment. BGC culture, including technology efforts, rewards leadership, good behavior and accomplishment.

- Communication and expression, between peers and adults, are promoted through specific activities. Teamwork, compromise, sharing and simply getting along in a diverse group are core BGC values, which shape and are shaped by technology usage.

5. Challenges persist. Several problematic aspects of technology programs are worth noting. Most clubs recognize these realities of their settings and are adapting locally, though imperfectly in most cases. Some of these challenges include:

- Limited teen participation
- Serving varied ages, skill levels, and interests of club members
- Aging hardware
- Are computers really that different from television?
- Attracting and retaining professional staff.

Implications for program design and future research

Technology in Boys & Girls Clubs is providing computer access for many youth who wouldn’t have access otherwise. It is being used to build technical competencies and advance other nontechnical BGC goals. Computer use demonstrates that learning and the information machinery of modern society are integral to the social mission of clubs.

On the other hand, technology is also “just another tool” used to create an environment where kids can play and grow. Technology may simply be “a 21st century basketball” which contributes dynamism and relevance to the overall effectiveness of clubs in promoting holistic youth development.

The researchers found that BGC technology programs:

- Offer technology access, and features of access (equipment, curricula, guidance) to youth who would otherwise not have it
- Offer technology access that complements opportunities in other settings (schools, homes) and provides unique benefits that other settings lack (play breaks, caring adults)

- Are implemented by staff experienced in youth programs, who draw on this experience to incorporate activities (competitive games) and to adapt to youth needs (shifting energy levels, interests, attention spans) that make BGC technology programs uniquely relevant, engaging and effective
- Are implemented in a “safe space” that enhances their value to youth and their parents and caretakers
- Benefit consistently from the combination of national stature and “branding” of BGCs, coupled with the local discretion and autonomy that enables local staff to mold the programs to the local environment and constituents
- Provide opportunities to build IT fluency, particularly with regard to productivity software and the Internet
- Help educate children by providing information and learning resources on a wide variety of subjects that would otherwise be unavailable
- Are more effective when club members who are also receiving training have similar levels of technology experience and skills
- Incentivize participation in other activities, learning activities and positive behavior due to demand for technology access
- Are emphasizing “cloud computing” in response to hardware shortcomings and diverse interests and skill levels among their students
- Attract children to clubs who would not otherwise be there, particularly teens

- Promote positive youth development in ways that wouldn’t be as enriching or effective without technology
- Promote creativity, expression, collaboration and other skills that are crucial to 21st century workplaces.

These observations, which were generally represented in our sample, warrant further study at a national level.

Implications for the 21st century workforce

The workplace of the information age requires a new set of skills, not simply industrial age skills plus computers. To create pathways for youth into middle class jobs, an entire range of skills needs to be nurtured, of which information technology is but one. Social skills, or “soft” skills should not be underestimated in the workplace of the 21st century.

Boys & Girls Clubs are creating environments where youth are enhancing their technical fluency as well as nurturing other learning and healthy socialization which will help them adapt to a changing workforce. Researchers and champions of public access to technology need to understand how computer training builds ICT skills, but also how it develops confident, curious, innovative, compassionate people.

Subsequent phases of research and program design should build on understanding the ways in which technology informs youth development and how those skills align with 21st century workplace needs.

Background:

Kids, Computers and Afterschool Programs

Since the early 1990s, the case for public support for technology access and training for youth in the United States has been predominantly grounded along two lines of reasoning. The first is the “digital divide,” which argues that access to computers and technological fluency are crucial to participation in modern social and economic life (Ba 2001, Servon 2002), both within and between countries (Norris 2001). As more vital social and economic activity occurs online, communities and individuals lacking effective digital access are said to be at a significant disadvantage, resulting in intensified and interlocking social and economic inequities.¹

The risks are acute for youth. Recent attention paid to “digital natives” (Palfrey 2008) and the popularity and growing cultural significance of online social networking—notably the influence of MySpace and Facebook on teen identity formation (boyd 2004, 2007)—underscores the significance of teen access in ways that adults do not fully understand. The generational gap in cultural practices and social assumptions around digital technology, such as privacy and communication norms, are also receiving greater attention as determining factors for workplace success (Mason, Barzilai-Nahon and Lou 2008). Youth lacking information age tools and practice are said to be at an important, and growing, disadvantage.

1. The “digital divide” metaphor, which reached its zenith in the 1990s, is used less frequently because of the recognition of the many factors are necessary for “effective” access besides a computer and an Internet connection. While various authors prefer different frames, the core “digital divide” argument (that digital access matters, especially in the United States) should not be lost. For a thorough description of the interconnected elements of effective access, see Warschauer 2003.



Boys & Girls Clubs commonly recruit volunteers for a variety of programs. Technology programs in particular benefit due to technical challenges as well as the need for individualized instruction. Above, Wright State University students assist youth with educational computer games at the Dayton Boys & Girls Club.

The second argument for access and training concerns workforce development, where individuals are said to need some level of fluency with information and communication technologies for middle class jobs in the global knowledge economy (Hall 2006, Schwarz and Stollow 2006). Competitiveness within and between workplaces demands technological dexterity. Communities, regions and nations depend on new crops of scientists, engineers, and other information age innovators with sufficient computer skills to drive competitiveness, fuel economic growth and create new jobs (Knox 2006, Markusen et al 1987).

The argument over how to achieve a technologically fluent workforce, however, is not simple or decided. Schools are one arena where evidence of the benefits of computers has been inconclusive. Despite the push by many educators, policymakers, business leaders, and parents who argue that

school computers and Internet access will improve academic learning and prepare students for an information-based workplace, the evidence is unpersuasive to many careful observers. Like the technologies which preceded computers and were also predicted to transform education (such as radio, film and television), the learning outcomes attributable to the technology greatly depend on supporting factors such as curriculum design, the capacity and commitment of individual instructors and details of implementation (Cuban 2001, Oppenheimer 1997). Many elements must align for a socially well-adjusted and tech savvy workforce to arise. While computers are widely supported as a means to remedy the digital divide and promote a technologically fluent workforce in schools and beyond, site-specific details, analyzed in ways that reveal useful patterns across sites, are still sorely lacking.

Clubs as technology access points

Against this backdrop, the Boys & Girls Clubs of America (BGCA)²—a national federation headquartered in Atlanta with more than 4,300 individual clubs that possess substantial autonomy in implementing local programs—invested in technology.³ In 1999, BGCA launched “Operation Connect,” a pilot project to establish computer labs in a handful of clubs. In 2000, “Club Tech” was created to provide five years of support for hardware, software, training and infrastructure for meaningful access in local clubs nationwide. Since then the number and variety of technology programs have expanded. These initiatives have introduced computers to youth in thousands of sites nationwide and reportedly altered the intellectual and learning characteristics of clubs once predominantly known for athletic activities (Branch Associates 2004). Computers are becoming givens in Boys & Girls Clubs.

Research has validated the importance of BGCA technology programs given the relative dearth of alternative, high-quality access points for club members, such as in the home (Henriquez and Ba 2000). Other research has

demonstrated that positive learning outcomes are associated with this access and with Club Tech in particular (Branch Associates 2004).

The locations are strategic since the youth BGCs serve are often minorities from single-parent families living in neighborhoods where economic security, physical safety and crime are critical concerns (Roffman, Pagano and Hirsch 2001). Boys & Girls Clubs therefore offer a useful lens for examining the intersection between afterschool programs and digital access.

Afterschool programs should be different than school

While findings from prior BGC technology-related research are useful as a starting point, these studies were primarily interested in technology and academic metrics. By measuring and analyzing subject-specific outcomes “relevant” to technology interventions, these studies have not adequately captured the larger fabric of clubs and the role technology plays in them. This blindspot is not unique to technology literature; the tendency exists across the body of research on afterschool programs, often with decisive implications for understanding the value and context of these programs. Arbreton, Sheldon and Herrera, in their 2005 synthesis of 20 years of research on Boys & Girls Clubs observe that:

Although yielding promising findings, the vast majority of these studies have been limited to documenting only the specific outcomes the programs were designed to influence (e.g., increased academic achievement, reduced levels of drug abuse, etc.), rather than considering that these programs are part of the larger fabric of the Clubs’ opportunities for leadership, decision-making and positive peer and adult-youth relationships—experiences likely to affect broader outcomes for youth. Even the few evaluations that have looked at club experiences more broadly—while finding support for some broader outcomes—have been limited in the outcomes they explored, and none have looked longitudinally at the Clubs’ effects on youth.

The issue of narrowly targeted outcomes is not unique to Boys & Girls Clubs. Afterschool programs of many types have been created and called upon to compensate for the deficiencies of formal schooling. As schools have been excoriated for failing to prepare students and concerns

2. In this paper, BGCs is the abbreviation for multiple Boys & Girls Clubs. BGCA refers to the national office or the collective movement.

3. BGCA technology sponsors and partners have included Microsoft, Bill & Melinda Gates Foundation, Intel Computer Clubhouses, the Todd Wagner Foundation’s Miracles Academies, and Best Buy.

surrounding youth vulnerability to crime, gangs and drugs have mounted, afterschool programs have been called upon to fill the void. Project-based grants and funding streams have created new demands on these programs which may or may not align with their larger youth development goals.

Some of these afterschool programs are institutions with long histories and missions that have been refined over many decades of serving youth. BGCA itself is over 100 years old. At least in the views of some leading thinkers in the field, afterschool programs need to be judged on their own terms, not simply thought of as the next opportunity to compensate for a poor education system (Halpern 2003).

The case is compelling. Many lower and middle-income students do not have access to enriching activities, especially as schools have cut extracurricular programs and geared curricula toward testing and core academic competencies. Funding, research and program design that prematurely emphasizes narrow outcomes risks missing important nonacademic dynamics. Constructive play, which is fundamental to happy, healthy childhood development (Reading 2007, Elkind 2007, Howard-Jones, Taylor and Sutton 2002), and woven into the DNA of many afterschool programs, is often held up as an example of a feature that afterschool

programs are committed to, yet is often marginalized in research on these programs. “Play”—to say nothing of leadership, decisionmaking, and positive relationship building with peers and adults—is difficult to measure and needs more focused attention in future research protocols.

Afterschool programs are distinct from school and serve the holistic, development needs of children, leading some to argue forcefully for grounded research that can untangle, contextualize and eventually align particular interventions—in this case technology—within the larger institution delivering it. The need for thoughtful, grounded research is the focus of Robert Halpern’s *Confronting the Big Lie: The Need to Reframe Expectations of Afterschool Programs* (2005):

In this paper I analyze the expectation that afterschool programs help boost academic achievement. I argue the urgent need to abandon it, step back, and undertake the basic, grounded research that might yield a more consonant set of expectations, and might shed light on the range and size of program effects for children of different dispositions, ages, and life situations, and for different types and qualities of programs. I argue that a useful program of research will require a perspective that includes consideration of the breadth of developmental tasks of children of different ages, and of those tasks afterschool programs are best suited to help address; sensitivity to the fact that different children need and want different things from afterschool programs; and respect for the diversity of programs in the afterschool field.

Research Context:

Questions, Methods and Limitations

This study is one of a number of projects that the Center for Information & Society (CIS) at the University of Washington is pursuing under a grant from Microsoft Community Affairs to understand the impact of community technology access and training around the world, particularly in underserved and disadvantaged communities. This research is intended to assemble evidence to inform practitioners, decisionmakers and donors who are working to maximize and sustain impact in information and communication technology (ICT) projects for the purpose of social and economic development.

Research questions and goals

Our research team's point of entry to afterschool programs originated with community technology, with a particular emphasis on ICT training and workforce development programs (West and Garrido 2008; Sullivan, Garrido, et al 2007), and research on public access to libraries (Gordon et al 2003). We have observed patterns that seem to hold across a wide variety of technology deployments, and have developed a number of hypotheses regarding community trust, charismatic leadership, strategic partnerships, social mission, types of curriculum, technical support infrastructure, strategies for adapting to various target populations, the menu of services that must complement ICT training, and other factors. This project sought to locate BGC programs within this context and assemble the following information:

- Develop a comprehensive description of technology use in Boys & Girls Clubs
- Identify and describe particular examples of programs and dynamics that make clubs different from and similar to each other, as well as other technology training programs we have studied
- Understand and describe how technology fits in clubs—how it complements or interferes with other priorities
- Develop an informed understanding of the BGC model and scale, range of clubs, variety of programs, diversity of populations served, and other factors required for contextualizing findings and setting up subsequent, generalizable research design.

Data and methods

Grounded theory, formalized by Glaser and Strauss in the late 1970s, describes a strategy for utilizing empirically collected data to build a general theory appropriate to these data. The emphasis is on systematic data gathering and analysis that helps alternative meanings of different phenomena emerge (Strauss & Corbin 1990). We have designed our work to minimize as many preconceptions as we could about the various impacts of technology use in Boys & Girls Clubs and to allow the people and settings to “speak for themselves.” Our approach does not attempt to generate “average” findings, but to better understand the context as well as particular cases.

Our design reflects contemporary expectations surrounding evaluation of technology interventions. In the 1990s, ICTs were often philanthropically “parachuted in,” in an attempt to transform low resource settings with dot-com exuberance and expectations grounded more in “potential” than evidence. In the first half of this decade, success stories that did not adequately take into account challenges and failures were abundant. Now, as technology programs have matured, recognition has emerged for the need to deploy sustained, systematic impact assessment grounded on how technology is actually used and implemented (Best 2008). Our approach, consistent with Halpern's call for

similar methods to be employed in afterschool programs generally, presumes that grounded inquiry is the requisite first step.

BGCs are a useful and important location for this effort. Boys & Girls Clubs have considerable national reach. According to the BGCA website, clubs have served over 4.8 million boys and girls and are currently located in some 4,300 sites, with special emphasis on serving disadvantaged and minority youth. They are a useful example of an after school program that is implementing technology in a significant way.

Club sampling and site selection

For this study, the CIS research team coupled an extensive literature review with site visits, interviews, and observations at 38 Boys & Girls Clubs across 15 systems in four states (Table 1), selected to cover a wide range of resource levels and program architectures for providing technology access and training. We began in western Washington and expanded to clubs throughout the state and on to Massachusetts, New York and Oregon.

Table 1: Geographic distribution of sampled clubs and systems

	Systems	Clubs
Washington	10	29
New York	2	3
Massachusetts	2	3
Oregon	1	3
Total	15	38

In Washington, we started with King County clubs that were most accessible to us, beginning with large neighborhood clubs and then moving to other satellite locations selected because they represented different types of facilities that served different populations of youth. These included teen centers as well as clubs located in elementary schools, community centers and public housing projects. We paid particular attention to stories about other related facilities (schools, and collocated institutions and clubs) and BGC innovators during these visits. In this way we began mapping the range of clubs and circumstances in order to gauge representativeness and consciously build our sample.

The process unfolded organically with subsequent sites selected based on a deepening understanding of the clubs and the communities they served. This became valuable over time as it became increasingly clear that clubs adapt in a variety of ways to local needs. We balanced various factors while selecting sites in order to test our emerging findings, such as levels of financial resources, community partnerships, staffing, program emphases, and the mix of youth. We moved from the King County system to the South Puget Sound system and developed ties with national and state administrators and other non-BGC partners (such as Microsoft, and NPCE Technology Solutions, a private consulting firm that works closely with a number of BGCs) that linked us with other clubs and county BGC systems around the state (Bellingham, Mount Vernon, Olympia, Moses Lake, Tri-Cities, Spokane). In order to gain an understanding beyond Washington state, we visited additional clubs in New York, Boston, and Portland, Oregon.

Interviews and data collection

Between August 2007 and April 2008, the CIS team conducted open-ended interviews with 86 key actors: 66 BGC program personnel who work directly with youth, and 20 executives, administrators or program support staff who work indirectly or occasionally with youth (Table 2).

Table 2: Key Actors Interviewed

BGC program personnel (direct work with youth)	No. of actors interviewed
Club director	14
Program director	12
Art director	1
Technology director	17
Education director	5
Teen director	6
Child care director	3
Other staff	8
Total	66
Executives, Administrators (indirect, occasional work with youth)	No. of actors interviewed
National, state BGC	5
County, system BGC	7
Partner organizations	8
Total	20

The range of responsibilities associated with the assigned titles varies slightly across clubs. In clubs with smaller staffs, a “program director” or “club director” might wear many hats, simultaneously performing the roles of art, technology and teen directors. In larger clubs, expertise tended to be more specialized so a “program director” might not spend much time in the computer lab. Examples of this specialization (Tables 3) had implications for both our research design and emergent findings.

We observed and informally interacted with many current and former club members and parents during our time in the clubs. As themes emerged, we employed semi-structured interviews and refined our strategy for selecting clubs and informants.

Generalization and limitations

While we are comfortable with this report’s descriptions of the specific settings and the generality of findings, limitations in club and informant sampling are worth addressing in future inquiries in order to assess the reach and robustness of our findings. Based on available resources and in an effort to maximize our understanding of the highly varied BGCA network, for example, we chose not to investigate other types of after school programs or to attempt to follow youth who were not club members—even those whom we met during this study. Our intent at the outset was to survey the landscape in order to gain confidence regarding what can and cannot be known and create a grounded basis from which to ask the “right” questions, to construct effective sampling strategies, and to avoid imposing inappropriate assumptions on Boys & Girls Clubs.

Generalization beyond observed behavior is inherently limited and we wish to bring that caution to this work as

Table 3: Selected Characteristics of Sampled Clubs

Characteristic	Clubs sampled
Dedicated music & arts centers	1
Dedicated teen centers	4
Clubs with teen rooms	19
Clubs with ‘tween room	1
Clubs with Intel Computer Clubhouses	2

Clubs collocated with...	Clubs sampled
Public schools	4
Public housing	5
City community centers	2
Social service agencies	3

well. As Walton (1992) has argued, cases “embody causal processes operating in microcosm. At bottom, the logic of the case study is to demonstrate a causal argument about how general social forces take shape and produce results in specific settings. That demonstration, in turn, is intended to provide at least one anchor that ties the ship of generalization until more anchors can be fixed for eventual boarding.”

In our research on Boys & Girls Clubs to date, we have attempted to sample sites and people in a way that anchors our generalizations beyond any individual instance. We feel this approach has yielded relatively robust general conclusions, although still limited to the places we have visited, and provides a useful platform for strategic data gathering in the future. More anchors need to be secured. Our conclusions should be tested further, utilizing strategic sampling and data collection (of Boys & Girls Clubs, and more generally of afterschool programs using technology) to clarify the appropriate boundaries and generalizability of this research over time and across settings.

Findings:

Scale, Learning and Socialization

The Boys & Girls Clubs we visited provide many opportunities for technology access and use. Generally, our respondents found these settings to be more productive and welcoming than schools, homes and neighborhood access points such as libraries. Technology use in clubs seems to enhance the experience of club members, and expand the appeal of clubs. We found no evidence that it reduced club appeal or alienated stakeholders. Our observations in the areas of learning and youth development also appear to have interesting implications for workforce and employability strategies.

Our findings are organized around five themes:

- Technology is widely used in clubs
- The BGCA federation successfully leverages its organizational architecture
- Technology programs promote learning
- Technology programs support positive socialization, and
- Challenges persist.

Technology is widely used in clubs

Technology is used in many ways in Boys & Girls Clubs. We documented the range of uses in clubs we visited in Table 4. We found these uses to be typical of the sites we visited, or when atypical, to be generally applicable in the BGCA model.

Technology programs are implemented to promote outcomes around the following five themes:



Customizing lessons and curriculum and developing personal relationships with individual club members is often difficult in large computer labs. This club uses scavenger hunts and contests to challenge youth with varying reading, typing and surfing abilities. The instructor goes from youth to youth to check on their progress and assist.

- General technical competencies
- Application competencies
- Non-technical learning
- Positive socialization
- BGC administration and implementation

Implementation and benefits of technology for nontechnical learning and positive socialization hinge on particular club factors, such as the individual abilities of instructors to “read their environment” and “manage the classroom.” Therefore, these uses, while relevant examples for clubs generally, are more difficult to realize across the board.

Table 4: Comprehensive Description of Technology Usage in BGCs

Technology used for	Examples
General technical skills	<ul style="list-style-type: none"> • Input/output devices (e.g., keyboarding, mousing, microphones) • Identifying various applications and determining the situations in which they are useful (e.g., Internet browsers for information seeking, word processor for typing) • Navigating software functions across applications (e.g., open, close, save, copy, paste) • Basic technical support skills (e.g., basic trouble-shooting) • Hardware (e.g., safely power on/off, understand components, identify ports, etc.)
Application competencies	<p>WORD PROCESSING AND PRODUCTIVITY APPLICATIONS</p> <ul style="list-style-type: none"> • Formatting, creating documents for varied purposes (e.g., resumes, script-writing) • Using spreadsheets for basic numeric expressions (e.g., budgets, basic graphing) • Communicating ideas differently, using appropriate tools (e.g., expression with words, numbers, pictures) <p>INTERNET FLUENCY, PRACTICE, AND ACCESS</p> <ul style="list-style-type: none"> • Navigation and surfing skills • Information seeking. (e.g., current events, curiosity, homework) • Internet safety, appropriate online behavior • Social networking • Gaming <p>DIGITAL ARTS</p> <ul style="list-style-type: none"> • Graphics design, visual composition. (e.g., posters, slide shows) • Web design • Music (e.g., audio engineering, songwriting, spoken word) • Movies (e.g., digital video, slideshows with audio tracks) • Photography
Nontechnical learning	<ul style="list-style-type: none"> • Supportive environments for Internet and technology access (knowledgeable, trusted adults and peers with whom to ask questions and learn) • Disciplined work, often coupled with a specific reward system (if you master level one, you get to move on to level two) • Improved delivery of information and skill development based on learning activities that are gauged to appropriate age and skill levels (individualized interests and varied skill levels can be engaged more precisely within a group setting by using the Internet) • Creative expression (technology skills and lessons are vehicles for expression) • Platform for contests (healthy competition motivates students to excel; contests often leverage benefits of teamwork and group learning) • Promoting a culture of learning (BGCs emphasize more than basketball-learning and communication) • Subject-specific exploration (community culture or current events might be the subjects; technology is the means for gathering and synthesizing information about the subject) • Improved resources for completing homework • Digital portfolios of achievement, which demonstrate that learning has occurred differently than letter grades • Provision of employability resources (such as resumes, job search skills, and making BGCs more credible sites for job fairs)

Table 4 (cont.): Comprehensive Description of Technology Usage in BGCs

Technology used for	Examples
Positive socialization	<ul style="list-style-type: none"> • Creating more, different opportunities for constructive play • Being valued sufficiently by youth to incentivize good behavior • Enabling 21st century socialization (like online communication, gaming, and information seeking) • Promoting creative expression and communication (artistic programs, game development) • Promoting digital teamwork and small group work • Facilitating new, subject-specific opportunities to relate with adults, peers (for instance, presidential candidate Barack Obama’s national address on race became more real with visual aids from the Internet—participants could see and hear the address and therefore better discuss it) • Attracting teens to clubs • Attracting a broader group of youth (kids not drawn to athletics) • Promoting 21st century tools to promote youth development within the BGC framework (technology as a 21st Century basketball)
BGC administration and implementation	<ul style="list-style-type: none"> • Databases of club members • Movement of kids among clubs and collaboration across clubs • Training, resources that improve staff performance and efficiency • Experiments in local autonomy and sharing of centralized resources • Customization of programs and increased quality of services • Communications tools to stay connected with alumni and volunteers • Innovation and dissemination of lessons learned and information leveraged from Internet access • Collaboration with other social service agencies and giving BGCs a valuable resource to contribute to partnerships • Demonstrations that BGCs are very 21st century

The BGCA federation successfully leverages its organizational architecture

The Boys & Girls Clubs’ centralized national resources and local autonomy are balanced in varied and interesting ways. The federated structure takes advantage of both consistencies across clubs, and of local discretion. The national office in Atlanta provides centralized resources from which clubs borrow. The clubs are independently run, locally organized 501(c)3 charities. They are not required to follow Atlanta’s lead, yet as a group they seem to perceive great value in doing so. It is not difficult to imagine how discretion in a network this large could amount to anarchy, but individual clubs overwhelmingly share the common characteristics of the national movement (i.e., a “safe space” for kids), while enabling the discretion clubs need to adapt to the circumstances of local communities and club members.

This judicious coupling of discretion and consistency seems to enhance their value as effective, scalable service providers. We witnessed efficiencies derived from the various levels of network collaboration, such as provision of curricula from Atlanta and technical support by county systems. Clubs also develop and sustain horizontal relationships where personnel share stories, lessons and moral support. We found close relationships between staff from different clubs that face similar challenges. Common del.icio.us links, “friends” on Facebook and other Internet resources are enhancing connections made through face-to-face encounters at local and regional events. We witnessed collaboration and sharing across systems and across clubs that did not require the participation of Atlanta.

BGCA is often characterized as a social movement. While this frame seems to capture the collective ethic, it does not accurately illustrate the efficiencies gained by the



EVIDENCE NARRATIVE

Becoming a Boys & Girls Club

Libby Teen Center

Spokane, Washington

For 30 years, Spokane's Libby Teen Center has been a gang-neutral meeting ground where youth receive homework help, play basketball, learn about money management or job searching strategies, hang out with peers and get a warm meal. The founder, was ready to retire so in the summer of 2007 he approached the local Boys & Girls Club, requesting that Libby become a teen center within the Boys & Girls Club network. He wanted teens to continue to have a safe space. "He recognized that many girls did not come because the only activity was basketball and he wanted that to change," recounts, Alise, the current Libby director.

Spokane Boys & Girls Clubs had been wrestling with their own teen strategies when the Libby founder came knocking. In October the transition began. The shared vision of "what we all wanted this place to become" was immediately evident, recalls Alise, "a safe and supportive environment for teens, targeting both guys and girls." The center is changing, taking on more structured BGC programming. "We're seeing more people and more people coming more often. I don't want to scare them away with too many programs. I have to slowly introduce them because they're accustomed to just hanging out and playing basketball," she explains.

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organizational structure. Assistance is offered to individual clubs and consortia, but not forced upon them; it is borrowed and adapted as needed. Clubs are locally entrepreneurial and opportunistic, so they are able to capitalize on resources appropriately in varied ways. They utilize centralized resources (curricula, web platforms, grant strategies, BGCA cultural practices such as competitions, mentoring and community outreach, etc.) without being constrained by them.

BGCs also represent experimental laboratories where new models of access and service are invented to respond to local circumstance and then replicated. The Lakewood

Branch of South Puget Sound is an example of a multi-use, collaborative space where a variety of service agencies work together. Several new clubs based on this model are planned. One parent who is familiar with a number of clubs in different parts of Washington state and has a working history with public social service delivery, for example, argued that this model represents "the future of Boys & Girls Clubs and of social service delivery." If that is true, then it will materialize because a particular node on the BGCA network experimented.

These BGCA sharing networks are both formal, initiated by headquarters in Atlanta and the regional systems, and informal, propagated by staff and club members that move between clubs. They are built on a strong community ethic. The centralization and discretion dynamic greatly complicates research design strategies and the ability to generalize based on data that does not acknowledge these differences from club to club. However, it also makes Boys & Girls Clubs useful laboratories. They experiment in a variety of ways, in a variety of contexts and share their findings across the network. The challenge for research seems to be an asset for implementation. Technology programs are one manifestation of this organizational architecture that seems to strengthen the federation's network effects while also providing a useful vantage for viewing discretion within centralization.

Technology programs promote learning

Clubs represent important access points for underserved youth who need information and communications technologies as much as they need libraries and books. Repeatedly we heard from staff and club members alike that access at the clubs is important because children did not have adequate access at home and in other spaces, such as schools, libraries and friends' homes, where they would have to vie with others for time. Access at clubs was also highly valued because youth could ask questions of knowledgeable and trusted adults, both about the technology and the subject matter they were researching. The "opportunity space" clubs provide is also important to families. Parents appreciate knowing that their children are learning with computers and spending time in an environment where that learning is valued and balanced with playtime, sports and exercise.

The observable patterns we found across clubs, which are described in more detail below, include:

- Youth are demonstrating improved fluency, confidence and excitement with technology
- Computers are considered an essential part of “being educated”
- Club Tech is widely used as a baseline resource and innovation platform
- Internet access and gaming is highly valued by youth, and
- Digital arts are popular.

YOUTH DEMONSTRATE IMPROVED FLUENCY, CONFIDENCE AND EXCITEMENT WITH TECHNOLOGY

Youth were excited and confident learners, especially around digital arts and Internet applications.

Productivity applications such as word processing and spreadsheets were not among the most routinely popular, but staff sometimes offered lessons and activities to encourage their use. The demands of working with youth of divergent ages, interests and skill levels—many who only drop in to clubs intermittently—makes extended lessons on school-like topics (like how to format a document in Microsoft Word) unappealing to staff and poorly attended by youth. Staff often try to make their lessons fun by embedding them within larger projects that draw on the specific interests of youth. For example, in order to borrow a video camera to make a film, club members at one site first needed to write a script and type it using Word. This policy had the effect of promoting the discipline to write (which required practice typing and using word processing software) while also limiting demand for the camera. Staff members are highly cognizant of the interest levels of club members and adapt their lessons accordingly. Resources for individualized learning, such as online tutorials, seem to be a common strategy for students who need and want more specialized instruction with productivity applications.

Widespread interest in using computers and technology provides a useful motivational device for savvy staff members to encourage other learning activities, such as finishing homework and incentivizing good behavior. Technology, because of its popularity and motivational cache with club members, is one tool clubs are using to build a welcoming, dynamic learning environment.

This is not to say that kids arrive in computer labs ready for the next phase of the school day. To the contrary, learning seems to be primarily driven by personal motivation and interests. The skill with which staff members are able channel youth energy into activities that are simultaneously interesting and challenging seemed to be one of the primary variables in the “learning” that occurred in computer labs. This in turn seemed to depend heavily on the number and diversity of students in the lab as well as the instructor’s relationships with the students, as well as their knowledge and interest in technology.

COMPUTERS ARE CONSIDERED AN ESSENTIAL PART OF “BEING EDUCATED”

Lab directors use computers instrumentally to help educate children. Rarely do kids learn about computers for the sake of the computers. Technology supports discussion



BGC’s long history and trust in the community makes them a valued partner in many community relationships. The Regence Club in Portland, Oregon is an example of a club that is collocated with an elementary school in a federally funded public housing project.

of current affairs, community culture and topics that spill over from school and home, adding dynamism, context and relevance. Clubs use videos from the Internet, search Wikipedia and rely on other research tools to help with schoolwork and give new perspectives on “things people are talking about.” Basic conversations, curiosity and cultural understanding increasingly are informed by Internet searching in clubs.

One parent compared the presence of computers in clubs to libraries in their community, explaining that even though they don’t often visit the library the fact that they can and sometimes do enriches the quality of life in the community. “It makes learning part of what the club is about,” he said.

There was some discomfort with the assumption that computers mean that students are automatically likely to learn more. Gaming and “goofing around online,” one staff member reported, are not the same thing as learning, though she felt that the presence of computers was contributing to a learning environment that staff vigilance is necessary to ensure. The general issue of instrumental versus noninstrumental use of technology, and the ways in which they are (and are not) related across clubs is worthy of sustained study.

CLUB TECH IS WIDELY USED AS A BASELINE RESOURCE AND INNOVATION PLATFORM

Due to local club autonomy, implementations differ across settings. In some places, handouts and self-directed curriculum are borrowed directly from national lesson plans. In other sites, Club Tech functions as a platform for innovation—staff members use it but do not feel bound to it. Staff members typically report borrowing from the lessons, and customizing them to fit their needs. Many report that without this resource they would offer a much smaller array of lessons, at lower quality, to their students.

Variations in the use of Club Tech provide another example of the centralization and discretion balance. In some cases, the Club Tech brand has become synonymous with “BGC technology programs,” where activities may be extremely customized yet still fly the Club Tech flag. One self-described “Club Tech Director” who was leading students in creating advanced movies and designing posters

with Photoshop was perplexed when we asked what he found most useful about Club Tech. “Club Tech is our program. That’s just what we call it.” But this very club he was describing hadn’t used lesson plans or other training resources from Atlanta in several years. The fact that they once used them and continue to borrow the brand demonstrates the brand’s value and the way that clubs seamlessly meld local programs with the national movement.

In a few clubs we visited, Club Tech resources—or really an awareness of centralized technology resources at all—were not evident. Computers were used by youth largely without active staff participation. Technology programs were not the only programs to lag in these settings; the entire club struggled.

INTERNET ACCESS AND GAMING IS HIGHLY VALUED BY YOUTH

Youth—even youth with scarce access to technology—typically charge into the computer labs, anxious to go online. In many cases they have strong ideas about what is fun and worth their while. They talk about websites with peers and investigate them when they get to the clubs. Sometimes interest is subject-specific: Sports statistics, new movies, and gaming “Easter eggs” were all mentioned as topics on which members seek information online.

Online games are also popular among youth. It was common to hear that games were valuable for fun and learning. Fluency with the mouse and keyboard, pattern recognition, hand eye coordination, navigating software, and problem-solving were cited as benefits of gaming. Gaming is not wholly embraced however. Gaming is usually allowed, but only with strict limits on the type of games permissible. Appropriate games are typically “age appropriate and non-violent.” In clubs that were able to break club members into smaller groups, gaming during lab time gave way to more structured activities such as scavenger hunts or digital artwork. When a unified lesson or activity led by a staff member or instructor was more difficult, gaming became more common. “They would play games all day if they could,” reported one staff member.

During our time with staff members, anti-gaming sentiment and defensiveness tended to soften. One technology director said: “Online games are tough for us because they

grab the kids' attention, but they aren't necessarily thought of as educational. When parents ask about what we do in here, you kind of feel them bristle at the idea of games. I think they have the image of a kid locked up in his room, alone, playing something violent and antisocial. That's not really what's going on here."

For gaming and other information seeking, the Internet is popular with youth. This exuberance for the Internet fits well in club programming, especially given varied interests and skill levels, by allowing staff to teach common skills like mousing, and program navigation, and to make common resources available (the lab, computers, Internet connection, etc.) that allows students to pursue individual interests.

Gaming also appears in some cases to be the equivalent, as one staff member fretted, of "putting the kids in front of the TV." The concern is that computer games are mindless and erode the social benefits of clubs. "I'd rather they were playing a board game," she said.

DIGITAL ARTS ARE POPULAR

The interest, benefits, and challenges for club members in digital arts (e.g., photography, movies, audio) varied according to age, attention span, and technical ability, as well as the availability of hardware and software at clubs. Across the board, at whatever level the facilities allowed, it seemed that digital arts, and multimedia in particular were powerful lures that yield high returns in terms of creativity, expression and engagement. Staff members report that the interest in digital arts is also a useful lever for encouraging positive behavior.

Digital arts curricula are routinely recognized as valuable because computer skills are so often used by these kids for creative expression. Technology skills and creative muscles are exercised simultaneously. A club member put it this way: "You can spend an hour playing games or looking at websites, but if you create something it feels different. It feels like you've accomplished something—something you can show to somebody else, that you want to show to somebody else."

Many of these benefits require certain foundational knowledge, which is often difficult to implement. Photo editing,



Youth—even youth with scarce access to technology—typically charge into the computer labs, anxious to go online. In many cases they have strong ideas about what is fun and worth their while.

movie editing, web design and audio engineering all were mentioned as requiring specialized skills that take time and extended focus to build. For both club members and staff, these skills and projects need more than one day of practice. This is a challenge for most clubs, which experience significant drops in participation as youth who have built that base of knowledge enter their teens. Uneven and intermittent drop-in attendance also complicates extended training. The deficit of prerequisite knowledge by students also raises the bar for lab directors to inspire and sustain participation in advanced artwork.

The emphasis on digital arts is often driven by student interest. Arts programs encourage creativity, expression and group collaboration and leverage the characteristics of clubs that make them distinct from formal schooling. For example, arts programs often use portfolio construction, offering individualized evidence of what they have learned and accomplished. "Producing a video or a website lets them show what they have done. It is very different from getting a grade on a report card." The ways that clubs are using digital arts is opening new avenues for learning that simultaneously advance creativity and play.

An important distinction arose repeatedly between computer arts activities and implementations that leverage the advantages of digital media and those that substitute digital media for nondigital media. Movie-making allows acting,

storytelling and visual expression to be preserved and enhanced. Likewise, digital photography radically decreases the costs of developing, editing and distribution. But some people thought that wholesale digital substitution for previously nondigital creative activities harms the larger goals of these clubs. One staff member noted, for example, that while there was some utility in “virtual” painting for teaching mousing skills, the creative and expressive experience was inferior to the “tactile” experience of “nonvirtual” painting with watercolors or crayons. Once again, the “potential” of technology to expand creativity and expression should not be accepted as evidence without reflection. In our visits, we saw examples that most would accept as being cases of technology enhancing creativity, and we saw other examples where the digital version was a substitute for other artistic activities. On reflection, though, participants often felt that proper implementation and staffing, rather than the characteristics of the digital technologies themselves, were the key to effectiveness.

Technology programs support positive socialization

Over the course of our work, the importance of youth development and examining technology’s role in BGC’s broader afterschool agenda grew. Even as we noted the technocentric dynamics described above, the finding that seemed most salient to BGC staff members, youth and also the research team related most to social development. Clubs are using technology instrumentally to support their larger mandate, creating a positive, safe space for kids.

Technology has become an integral part of BGC’s youth development orientation. BGC programs typically are implemented to benefit the “whole child,” even though the program may be intended to target a particular outcome. As one staff member said, “Clubs are about kids, not grades, drug abuse, or crime.” As such, technology is often deployed in unexpected ways and program interpretations should reflect this orientation.

Rich examples were evident of technology usage as an incentive to facilitate structured social activities, to participate in and build community, and to form closer, trusting relationships with peers and adults. Some students come for the computers and then pick up a basketball. Some

students get a taste of technology as an occupation. As one staff member reported, “for some of these kids, the ability to try an activity and decide they would rather do something else” is crucial. For others, “diving deeply” into a particular activity is more important. Technology, by being available, sampled and in some cases heavily used, is helping draw students into safe spaces and energizing the development of social skills and the provision of social services they did not realize they needed or wanted.

Because the social development aspects of BGC technology became evident to us through grounded research and continued to grow in importance after the data collection phase of research was complete, our work is not built on formal youth development models and literature. Our language is not precise in this regard and these findings should be refined and further investigated with specific attention to youth development. An understanding of age-appropriate development stages, for example, would be very helpful. That said, notable patterns emerged that illustrate the ways technology is seamlessly integrated, and uniquely leveraged, to help kids be happy, funny, confident, expressive, compassionate, responsible, and healthy. We are calling this social development. Examples, which are described in more detail below, include:

- BGCs are safe spaces for kids
- Practice building positive relationships with adults is a cornerstone of youth development
- Constructive play, which is fundamental to happy, healthy childhood development, is woven into the DNA of BGCs
- BGCs nurture a virtuous cycle of leadership, good behavior and accomplishment
- Communication and expression, between both peers and adults, are promoted through specific club activities.

SAFE SPACES FOR KIDS

BGC’s reputation for being positive places for kids seems to be earned, cherished and generally true. Club members are “off the streets,” and therefore physically safe. They are also psychologically safe to sample new experiences, build relationships and grow as people. The fact that clubs are

not like school, noncompulsory and ungraded, is an important element of club culture that makes them more welcoming and “safe.”

Technology programs assume these characteristics. Online safety is considered an important “safety” skill that can benefit members in the club, where the Internet is typically filtered, and beyond, when they are surfing unfiltered at home or at friends’ homes. Adults—with whom they have a variety of experiences and trusting relationships—model and encourage positive behavior such as fun and safe online activities, educational computer activities, and healthy gaming. Many club members do not have access at home, or are unsupervised when they do have access, so guidance from caring adults is prized. Clubs are experimenting with a variety of solutions to Internet safety, especially with the rise of social networking, fine-tuned to the ages of their users and to community standards.

POSITIVE RELATIONSHIPS WITH ADULTS

The fact that the relationships they build with adults in clubs are different from those at school and home seems to be uniquely valuable. Technology programs, like BGC programs generally, promote these relationships by staffing labs with caring adults and recruiting outside volunteers¹ to work with students, model positive behavior, share expertise and experiences, and develop close relationships.

Clubs’ noncompulsory nature frames the relationships with adults. We heard variations on this refrain many times: “We are not like schools or daycares. We are program-based which means they come for the programs. They don’t come here because they have to. They come because they want to.”

If youth were required to attend, staff said they would be less responsible for their own behavior. In clubs, youth are sent home if they do not behave properly. The effect on the child is part of what makes this model effective; it

1. Clubs enlist adults for many purposes. Technology volunteers are particularly important because of their technical expertise. Photoshop was repeatedly mentioned as a program that is useful but often too difficult for club staff members to teach given other responsibilities. Audio engineering is also very interesting to youth, especially teens, but which often overwhelmed staff members. Outside experts are frequently required (and leveraged) in these areas.



Staff Spotlight: Murray Bass

Roxbury Boys & Girls Club

Boston, Massachusetts

Murray Bass lived in New Jersey providing IT support and training to corporate clients. He had always been interested in technology, but something was lacking in his professional life. He desired to try something more meaningful and pursue his passion for working with youth. He returned to his roots, moving to Boston’s Roxbury area where he was born. He applied to be the technology director for the Boys & Girls Clubs of Boston, with the intention to work there one year. That was nine years ago. Today, according to Alexander, the technology director of the South Boston Boys & Girls Club, “Murray Bass is the godfather of our technology program.”

What Murray loves about his work are the “relationships with the kids” as well as having the “chance to teach them about what they can do with technology, something that is important to know these days for finding work. Technology skills will help them to pursue their own interests and to assist in their future professional growth. They are learning professional computer applications that are for the most part not taught in the schools.”

A COMPUTER CLUBHOUSE AND DIGITAL ARTS IN A BOYS & GIRLS CLUB

The Roxbury Club is one of twenty-two Boys & Girls Clubs nationwide that house Computer Clubhouses, or computer labs that are partly supported through a grant from Intel. These clubs have access to Computer Clubhouse resources plus Club Tech. The flagship Computer Clubhouse was an experimental project of the Boston Museum in collaboration with MIT’s Media Lab to expose underserved youth to art, science and technology.

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also changes the way staff members approach their work. According to staff members, because they have to make club activities fun and engaging, it alters their authority and therefore their relationships. They do not issue orders. They use “persuasion and enthusiasm instead” which is reported to be very different from other adults in other venues with whom youth build close relationships.

Both club and staff members consistently say it's the people and relationships that make the clubs special and the noncompulsory, alternate authority model seems to be an important element.

CONSTRUCTIVE PLAY IS WOVEN INTO THE DNA OF CLUBS

From basketball to ping-pong to board games to music programs and now to computers, “play” and “playfulness” prevails in clubs. It infuses the noncompulsory, enthusiastic relationships that staff members develop with youth and is part of BGC culture. This pattern is apparent in technology as well. Internet gaming and digital arts are two examples of how learning fuses with the agenda of play. It also drives the curriculum choices and management of day-to-day computer lab activities. Youth engage in these activities as individuals and small groups. Laughter, teamwork and improvisation are fundamental in BGC computer labs.

VIRTUOUS CYCLE OF LEADERSHIP, GOOD BEHAVIOR AND ACCOMPLISHMENT

BGCs nurture a culture that rewards leadership, good behavior and accomplishment. Cherished awards foster behavior rooted in community service and leadership. The prestigious Youth of the Year Award honors members locally, regionally and nationally. Leadership programs such as the Torch Club, which is aimed at 11 to 13 year-olds in approximately 700 clubs, and the Keystone Club, a small group leadership program aimed at 14-18 year-olds, were often mentioned. The national Digital Arts Festival seems to be pulling similar levers in the technology realm.

In some cases these programs build a connection to the BGCA movement that lasts into adulthood. Youth—even those who leave as teens—sometimes return to reconnect as twenty-somethings and beyond. Conscious attention to nurturing leadership in young people and giving them increased recognition and responsibilities are reported to build character and confidence and elevate beneficiaries as role models in the eyes of others. BGC awards often figure prominently on the resumes of young job applicants. And while we could imagine one unanticipated consequence of awards and elevating youth leaders being a “teacher’s pet” problem, staff members report that this is largely not an issue because good peer relationships are often factored into selection.



Internet safety is an overriding concern in BGC computer labs. Most clubs combine Internet filtering with suggested web sites to promote online safety among club members.

In this way, good programs which are fundamentally concerned with serving and engaging the whole child nurture positive values, behavior and choices that end up binding kids to the larger organization. It is a virtuous cycle, which includes technology programs. This cycle would be substantially stronger if teen participation could be sustained. However, that issue will be discussed more fully later.

COMMUNICATION AND EXPRESSION BETWEEN PEERS AND ADULTS

Staff members frequently emphasize the importance of listening to club members and directly communicating, especially when discipline issues arise. Because they are not a “daycare” and the children and adolescents are not required to be there, as discussed earlier, the authority of staff members is different—their listening, persuasion and enthusiasm are on display. Teamwork, compromise, sharing and simply getting along in a diverse group are core BGC values, which shape and are shaped by technology usage.



EVIDENCE NARRATIVE

Lifelong Ties, Community-Building and Technology Education

Al Davies Boys & Girls Club

Tacoma, Washington

Boys & Girls Clubs of America (BGCs) are surprisingly similar. The federation has captured the benefits of scale while nurturing what's most innovative and personal about local control. They are fundamentally community based, made up of more than 4,300 independently operated clubs nationwide. And yet, clubs in Tacoma, Washington and Boston, Massachusetts share uncanny similarities. They share a sense of community. The ability to balance a cohesive national identity and scalable program support with local discretion is notable for donors and organizations seeking to replicate the impact of BGC. It is a remarkable springboard for reaching youth; it is proving especially effective for technology access and training.

Echo Curry offers insight—insight into the link between computer literacy and education, the way BGC's mission tethers technology to the holistic well being of children, and the mutually reinforcing, virtuous cycle driven by a legacy of successful programs and BGC's community ethic.

Echo is the technology director at Tacoma's Al Davies Boys & Girls Club. Like many BGC staff members across the country, Echo began as a club member. "I started at South End," in Tacoma. "I did every program. Torch Club. I was Youth of the Year. I did what most teens did. I was getting older, a little bored with school, and I got interested in my friends and other activities, so I left. But eventually I came back and started volunteering."

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- Aging hardware
- Are computers really that different from television?
- Attracting and retaining professional staff.

These findings will not be unexpected by most club staff members we interviewed. Most clubs recognize these realities of their settings and are adapting locally, though imperfectly in most cases.

TEEN PARTICIPATION

Everyone knows serving teens is difficult. While important experiments and examples of success exist (such as the Bellevue Ground Zero Teen Center), our research found a wide variety of approaches and even diverse opinions regarding the proper role that clubs should play in the lives of teens. Some clubs do not attempt to serve teens, believing that teens' autonomy, extracurricular opportunities at school and part-time jobs make clubs a poor fit. Others believe clubs should serve teens, though they are stymied by the challenge.

While many aspects of the teen challenge are beyond the scope of this report, one clear finding is that technology is a powerful lure, especially video and audio. Past research has pointed to the value of technology as an entry point for teens (Hall and Israel 2004) and our findings are consistent with this research. Several BGC staff members reported that while they were personally interested in multimedia, older students were critical for implementing the programs because the software is too complex for the staff, given their other responsibilities. Teen interest and focus helps these programs succeed. This also gives teens a feeling of belonging and usefulness that is reported to be valuable.

The growing social importance of Internet access also makes clubs highly relevant access points for teens, simultaneously intensifying the harms of low participation. We visited a club where teens had bypassed club filters and proxy servers (as well as the rules) in order to logon to MySpace. As a result, the computers were powered down and off-limits when we visited. Staff members say that teens knew the consequences because this was not the first time the MySpace ban had been circumvented. It seemed to the researchers to be an interesting expression of the value that these teens placed on online participation and

Challenges persist

While our general impression of the federation as well as individual clubs was strongly positive, including clubs that face clear and substantial challenges, several problematic aspects of technology programs are worth noting, as described in more detail below:

- Teen participation
- Serving wide age ranges



EVIDENCE NARRATIVE

Mentors, Work and Life Skills

Bellevue Boys & Girls Clubs

Bellevue, Washington

At an earlier point in Brian Hughes' life, it might have been difficult to predict his current success. As a middle school student living in Bellevue Washington's Hidden Village public housing project and moving between abusive, alcoholic homes, he had a reputation for trouble making. On one occasion, he drove a teacher to tears sitting on the hood of her car, laughing and harassing her as she tried to leave. He refused to move.

Today, Brian won't stop moving. He laughs easily, warmly encourages the children he's teaching and openly shares stories about his future goals. Not only is he a successful college student with aspirations to teach high school science and math, he also runs his own technology consulting business while holding a full time job managing the Bellevue Boys & Girls Club. While many forces have influenced Brian's path, technology access and training at Boys & Girls Clubs have played a pivotal role.

FROM BELLEVUE TO CHICAGO AND BACK AGAIN

Born in Chicago but raised in Bellevue with his mother and stepfather, Brian hardly knew his biological father. As turmoil at his Hidden Village home increased due to the alcoholism and abuse of his stepfather, he got into trouble. He had earned a bad reputation among staff members at the newly formed Hidden Village Boys & Girls Club—a partnership between the Bellevue Boys & Girls Clubs and the King County Housing Authority. "I was kicked out of the club a lot. For lots of reasons. I was kind of out of control," Brian recalls.

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the perceived relative risk of lost access. MySpace was often cited as the most valuable use of the computers, which may have made the punishment worth the risk. Teen identity formation occurs in many settings, and increasingly it is occurring in online social networking sites.

Most clubs disallow MySpace. However, these policies are inconsistently supported, particularly among clubs that target teens. Some clubs allow social networking sites and

treat it as any other online safety issue, requiring education, awareness and caution regarding the information shared and the people engaged. Fear and ignorance, some argue, is the bigger risk. One technology director collects articles supporting the club's decision to allow MySpace. Another staff member who worked at a club where MySpace was not allowed created his own profile. At night and at home, he would logon and "befriend" club members who also maintained profiles. He understands the club policy, though he thinks guidance and engagement are a better way to support the youth—plus, as a twenty-something with his own social networks and interests in technology, MySpace is a natural part of his life.

The ways that clubs attract teens and find solutions to the challenges of providing social networking access while remaining true to their commitment to safe spaces and age appropriate activities for all club members will grow in importance in coming years.

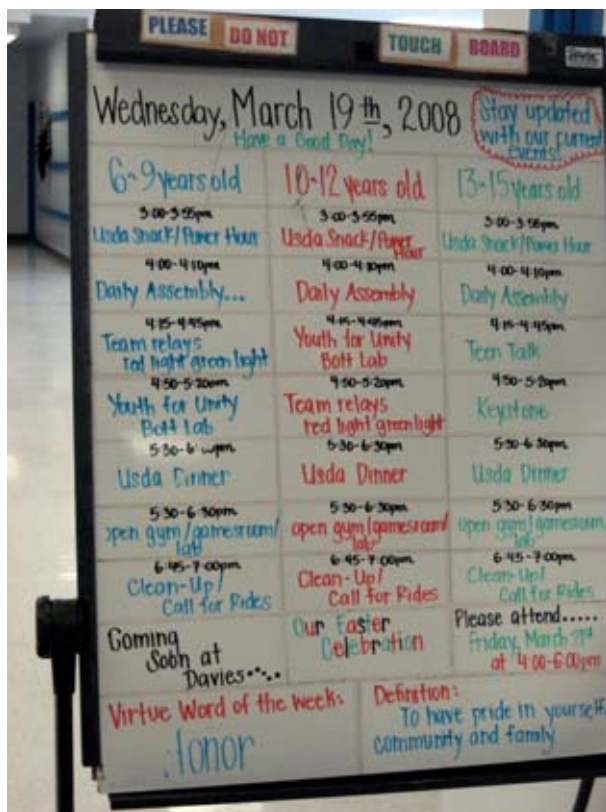
SERVING WIDE AGE RANGES

Teen participation is a subset of a larger challenge that clubs face by serving such a diverse group of youth. Six-year-olds and 18-years-olds have widely divergent needs, and strategies to interest and engage them are similarly ranging. From decisions to ban MySpace and YouTube—which most staff believe to be inappropriate for the youngest club members—to the difficulty of tailoring computer training to students who differ widely in their ability to read and type, technology programs are difficult to implement for children of diverse ages. The outcomes are policies and activities which in the words of one staff member end up serving the "lowest common denominator." In fact, the choice to cater to the youngest club members limits the ability of many clubs to serve older members.

This problem is nothing new in Boys & Girls Clubs where the social and developmental needs of youth vary greatly. Recognition of this challenge and innovations that attempt to deal with it are essential for successful technology implementations.

AGING HARDWARE

The hardware was often, as one director described it, "venerable." Frequently, computers were over five years old and



Managing programs for varied ages, skill levels and interests of club members is an important challenge faced by clubs. This Tacoma, Washington club cycles students through their technology programs, as well as other club activities, by age: 6-9, 10-12 and 13-15 year-olds.

hadn't been replaced or upgraded since the original Club Tech grant. "We couldn't give these monitors away," said one director, gesturing at the lab's dozen 15" CRT monitors. "You see monitors like these sitting on street corners and in yards with 'free' signs on them." The older processors and memory limits the ability to install and optimize the performance of new software. Investments in bandwidth have made "computing in the cloud" a common strategy. However, bandwidth frustrations were common as well. While some clubs are budgeting to replace depreciating hardware, aging equipment and performance bottlenecks are certain to be a looming issue for Boys & Girls Clubs technology programs.

ARE COMPUTERS REALLY THAT DIFFERENT FROM TELEVISION?

While computers and the Internet are inherently more amenable to creativity and interactivity and less passive than

CIS EVIDENCE NARRATIVE

Teen Participation, Gaming and Jobs

Boys & Girls Club of Metro West

Marlborough, Massachusetts

"Up until this year I hated the gaming thing, it always seemed a waste of their time," said Brent, the Metro West Club Tech director. Despite this skepticism, Brent applied for a grant for an Xbox for the teen center.

Club members had the idea of turning a storage space into an arcade-like game room. "We had a discussion (Brent and the teens) and the consensus was that if they could raise the money to change the room, then they could have their game room. The teens raised the money to pay for it. They chose the colors and painted the room. They bought the carpet. They did all the work and installed it all themselves."

"I've always been a big believer of kids having a say in what happens," he said. "It results in their buy-in and actually makes my job easier. I don't run the center like a school or movie theatre, it's their place, their teen center." He is proud of his teens being able to compromise with each other and develop mature and diplomatic consensus building skills. The game room is a case in point.

The teens use the room a lot, regulating its use and scheduling competitions. "The majority of the time spent in the room is in their game leagues competing against each other, just like a sport league."

"I've found that these competitions and the game leagues the kids have established are attracting teens that aren't jocks. Maybe they are intimidated with sports like basketball or are generally more shy, less aggressive. I don't know exactly what it is but these kids are comfortable [competing] in this gaming environment where they aren't with sports ... They compete with concerts and other performance activities like Rockband, Guitar Hero and DDR [Dance Dance Revolution]." It turns out that gaming is good exercise, too. "They really get into it until they are dripping with sweat."

Continue reading on page 37

television, in certain settings where labs were overflowing with kids of all ages we witnessed staff struggling to juggle the needs of club members. In some instances, it seemed that the computers served an entertainment function so

that more pressing problems could be resolved. It seemed similar to stories we have heard from parents who put on a DVD to entertain their kids so that they have time to make dinner. In overflowing, understaffed settings, the benefits of the computers seemed more “potential” and less realized. Staff often did not have time to track the particular activities of each child. While they certainly weren’t somewhere “unsafe” online, we don’t know where they were. They did not seem to be editing movies or writing a script. This is the scenario where skepticism around gaming arises. Left to their own devices, will students choose healthy, constructive digital activities? And how should we judge what is “good for them” and what is trivial? MySpace is one of the clearest examples of how adults do not understand the significance of digital interaction. However, in these settings the words of the staff member who said she might prefer it if they played a board game with other children seemed relevant. Is staring into the cool blue glow of a computer’s CRT window so different than a television because of its potential?

ATTRACTING AND RETAINING PROFESSIONAL STAFF

Afterschool programs typically face chronic staff turnover challenges. Finding, training and retaining high quality staff has also been found to be important for positive program outcomes in afterschool programs more broadly (Grossman, Campbell and Raley 2007). While many staff members remain in clubs for many years, turnover and quality of staff concerns surfaced in our interviews. Directors, while being extremely supportive of staff members, reported a desire to hire more staff with professional training. They wanted more psychological and youth development expertise.

The concern was also raised in technology programs. The ability to provide the most engaging, popular technology training (such as audio and multimedia) is difficult. As staff members develop those skills they are often able to command higher pay and opportunities in the private sector.



Hardware and physical resources are a looming issue for clubs. In this club, computer lab resources are tightly stretched. “We don’t want to spend our money on chairs, so we use milk crates and cut squares of surplus carpeting for cushions,” the director explained. “All of these machines were here when I was hired over 5 years ago. I don’t know how we’re going to replace them.”

Clubs have adapted in interesting ways. They recruit outside volunteers such as audio engineers and photographers. They have also developed a club culture and award system (such as their Youth of the Year Award), which grooms club members to assume leadership positions in the clubs. Through these opportunities, teen and recently graduated club members find meaningful opportunities and stay longer than they otherwise would have, keeping resources in the community. This gives teens and young adults transitioning out of club membership valuable training in leadership and employment settings, provides role models for younger kids and builds cultural continuity between staff and club members.

While the adaptation has important upside benefits, programs would greatly benefit from longer-term, professional staff enhancement. This seems especially true given that so many of the benefits of technology seem to hinge on the qualities of the instructor. Digital tools in the hands of a motivated, energetic and knowledgeable teacher are inspiring. Those same tools in an overcrowded, understaffed club lose some of their shine.

Discussion:

Implications for Program Design and Future Research

This report demonstrates that technology is being widely integrated into the Boys & Girls Clubs we visited to provide Internet and computer access for many youth who otherwise lack it. Technology is also being used to advance other nontechnical BGC goals. Computer use demonstrates that learning and the information machinery of modern society are integral to the social mission of clubs. In some cases, the emphasis on computers has attracted kids that wouldn't have otherwise been interested in club life. Technology has opened doors to new, relevant skills.

On the other hand, technology is also “just another tool” staff members use to create an environment where kids can play and grow on the path to healthy, productive adulthood. Technology may simply be “a 21st century basketball,” a useful tool that contributes dynamism and relevance to the overall effectiveness of the club setting in which youth development occurs. In this sense, technology programs need to recognize the supporting role they play and what clubs are already accomplishing. It is also important to recognize when computer access uniquely adds value, and when it is an inferior substitute for richer, less technical alternatives such as the “virtual” paint versus watercolors example cited by a staff member.

While technology access in clubs is directly building computer skills that are said to be essential for successfully participating in school, the workforce, and other dimensions of 21st century life, the most striking dynamics we observed during our time in clubs and discussing technology programs with key actors was the way everything was filtered through the prism of youth development. While informants willingly discussed lesson plans and technical support strategies, they lit up when they talked about relationships, experiences and the personal growth they witnessed in club members. Staff members customized

activities and choices based on the particular needs of children, which sometimes changed based on the kind of day that the children were having. The remarkable thing going on in Boys & Girls Clubs is the way children and adolescents are growing as people. Technology programs in our view need to be examined in this light.

This research represents an attempt to examine the BGC technology landscape and reveal underlying patterns. It is meant to help practitioners, donors and researchers frame technology appropriately within clubs.

Synthesis and hypotheses

The following hypotheses represent the conclusions we feel confident drawing based on the places we visited. Our methodology allowed us to capture dynamics that arose from experiences in these clubs, and our selection of sites and informants was consciously informed by an evolving awareness of the varying factors that made clubs both typical and unique. Even though we feel confident about our observations concerning the sites we studied, generalizing about the next 4,200-plus clubs is an undeniable challenge.

Policymakers and program staff should consider these observations in light of their own experiences, with special attention to their applicability in their own settings. Future research that tests these ideas against a wider sample is appropriate.

The CIS research team offers the following hypotheses regarding BGC technology programs—that they:

- Offer technology access, and features of access (equipment, curricula, guidance) to youth who would otherwise not have it

- Offer technology access that complements opportunities in other settings (schools, homes) and provides unique benefits that other settings lack (play breaks, caring adults)
- Are implemented by staff experienced in youth programs, who draw on this experience to incorporate activities (competitive games) and to adapt to youth needs (shifting energy levels, interests, attention spans) that make BGC technology programs uniquely relevant, engaging and effective
- Are implemented in a “safe space” that enhances their value to youth and their parents and caretakers
- Benefit consistently from the combination of national stature and “branding” of BGCs, coupled with the local discretion and autonomy that enables local staff to mold the programs to the local environment and constituents
- Provide opportunities to build IT fluency with digital arts, productivity software and the Internet
- Help educate children by providing information and learning resources on a wide variety of subjects that would otherwise be unavailable
- Are more effective when club members who are also receiving training have similar levels of technology experience and skills
- Incentivize participation in other activities, learning activities and positive behavior due to demand for technology access
- Are emphasizing “cloud computing” in response to hardware shortcomings and diverse interests and skill levels among their students
- Attract children to clubs who would not otherwise be there, particularly teens
- Promote positive youth development in ways that wouldn’t be as enriching or effective without technology
- Promote creativity, expression, collaboration and other skills that are crucial to 21st century workplaces.

Conclusion:

Technology Skills, Positive Socialization and the 21st Century Workforce

The workplaces of the industrial era are different than those of the Information Age. Information and communication technologies are changing work as well as the way people operate within those workplaces. A fundamental shift is underway. A new set of skills is required, not simply the old set plus computer skills. In the “churning” information economy, workplaces that support middle class wages require labor that can develop new skills over the course of a lifetime, solve problems by adapting experiences to new situations, collaborate in small teams, communicate with diverse groups of people, think creatively and perform with flexibility (Levy & Murnane 2004). In fact, of all the required skills that new entrants to the workforce need, as listed in a 2006 report “Are they really ready to work?” (Conference Board et al 2006), new entrants to the US workforce are *least* deficient in basic computer skills.¹ In other words, there is room for improvement, but if the goal is to create pathways for youth into middle class jobs, then a whole range of skills need to be nurtured, of which information technology is but one.

In this context, understanding the ways that technology contributes to a wider set of skills is needed, beyond technocentric intelligence. Boys & Girls Clubs are creating environments where youth are enhancing technical fluency as well as nurturing other learning and healthy socialization. Children and adolescents need the holistic capacities that seem so fundamental to BGCs (including creativity, aesthetic sense, growing skill in specific domains, self-expression, interpersonal skill, sense of agency and voice, identification with home and community culture, individuality and relatedness, compassion, and physical vitality), which seem to be, in some cases, driven by technology programs. Researchers and champions of public access technology need to understand how computer training builds ICT skills but also how it develops confident, curious, innovative, and compassionate people. How can BGC technology programs keep kids in school? How can these program help get them to college? Or help them succeed in the social workplaces that will characterize the 21st century? The next phases of this research should build on the ways that technology informs youth development and the ways those skills align with 21st century workplace needs.

1. The study surveyed Human Resources Professionals regarding the skills of high school graduates, two-year college or technical school graduates and four-year college graduates. Only among the high school graduates was a “deficiency” in computer skills found.

Mentors and Computers:

Developing Work and Life Skills in the Boys & Girls Clubs of Bellevue, Washington

At an earlier point in Brian Hughes' life, it might have been difficult to predict his current success. As a middle school student living in Bellevue Washington's Hidden Village public housing project and moving between abusive, alcoholic homes, he had a reputation for trouble making. On one occasion, he drove a teacher to tears sitting on the hood of her car, laughing and harassing her as she tried to leave. He refused to move.

Today, Brian won't stop moving. He laughs easily, warmly encourages the children he's teaching and openly shares stories about his future goals. Not only is he a successful college student with aspirations to teach high school science and math, he also runs his own technology consulting business while holding a full time job managing the Bellevue Boys & Girls Club. While many forces have influenced Brian's path, technology access and training at Boys & Girls Clubs have played a pivotal role.

From Bellevue to Chicago and back again

Born in Chicago but raised in Bellevue with his mother and stepfather, Brian hardly knew his biological father. As turmoil at his Hidden Village home increased due to the alcoholism and abuse of his stepfather, he got into trouble. He had earned a bad reputation among staff members at the newly formed Hidden Village Boys & Girls Club—a partnership between the Bellevue Boys & Girls Clubs and the King County Housing Authority. "I was kicked out of the club a lot. For lots of reasons. I was kind of out of

control," Brian recalls. "We would climb up on the roof and drop stink bombs into the vents." Eventually the situation at home and in the housing project grew intolerable and Brian moved to Illinois to live with his father.

The grass was not greener in Evanston, Illinois however. The alcoholism and abuse were worse. He endured violent binges at the hands of his father. "He used to make me stay up with him and drink a fifth of vodka on school nights and if I was slow to get out of bed he'd yell and threaten me." One of the final straws was the "time when he was with his friends, he shot me with a BB gun, just for fun. I still have the pellet in me today." It was more than a twelve year old should bear. After several months Brian hopped on a Greyhound Bus and headed west on I-90 for Washington.



Brian, at the Hidden Village Boys and Girls Club in Bellevue before living in Chicago.

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They come here because they want to.
But if they don't act appropriately, with
respect, then they need to go.

Mark Haines, Hidden Valley Boys & Girls Club director

The return was slightly bittersweet for Brian: he was not looking forward to his Hidden Village home life and he was going to miss his new school. “The school in Chicago was really amazing. There were so many things to learn and there were teachers that helped me follow whatever interested me.” His appreciation for education and mentors foreshadowed the path his life would follow.

Safety, learning and mentors in the Hidden Village Boys & Girls Club

Returning to Bellevue was not easy and once again, violence followed. He was trapped between the trials at home with his stepfather and the challenges of re-entering the Hidden Village adolescent pecking order. As a middle-school student, he now felt “too old to hang out with the younger kids” but not quite old enough to mesh with the teens. On two occasions he was the victim of other teens that “used to be my friends” who kicked him into submission. “They took turns kicking me. I was balled up on the ground trying to protect my head and stomach. I was crying and they kept kicking me.” They eventually stopped when he lost control of his bowels. “I crapped my pants. They literally kicked the crap out of me.” Brian wanted a safe, social alternative to the terror and violence.

Mark Haines, at that time the new director of the Hidden Village Boys & Girls Club, knew Brian as one of the kids that made regular stops at the Club after school to check e-mail and play games on the computers. They would scatter when it came time to participate in other organized club activities. Mark knew of Brian and his buddies' unruly reputation and history. He knew he needed to establish rapport and that their interest in the Internet and gaming was an entry point. “In order to get kids to give up that kind of unfettered freedom and open up...you have to build relationships,” he said. Boys & Girls Clubs are founded on the notion that attending a club is a privilege; kids cannot be

compelled to stay. The flip side is that they can be kicked out. This creates leverage with parents to get them to behave and incentives for the staff to make it inviting and interesting. “They come here because they want to. But if they don't act appropriately, with respect, then they need to go,” says Mark. Mark made a point of engaging Brian by offering more computer and video game opportunities, always with a healthy dose of required respect and good behavior. “The Xbox can be really persuasive” according to a club staff member.

Initially Brian was skeptical of “the new guy who was strict, but seemed cool enough.” He and his friends gradually popped in more often, for longer periods of time, to hang out and use the technology. Though they still largely shunned organized activities, they gradually developed a relationship with Mark.

Fixing the computers, getting a job

Over time, Mark recognized Brian's interest and skill working with the clubs' computers. It started by helping other students and staff members when they had questions and continued whenever computer problems arose. Brian had a knack for fixing things—he loved broken appliances because they were a great excuse to take them apart and tinker. Once, Mark gave him permission to fix a computer. After several hours it was working again. Another time, Jim Foster, director of technology for all the Bellevue Clubs, came to fix a couple of the computers. Brian spent the afternoon watching him and was soon volunteering as the computer lab manager, which allowed him to hold a valued job and work with the computers when the other kids had to participate in structured club activities. Brian was becoming more engaged and more confident.

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hours it was working again.

Brian's aptitude for troubleshooting computer problems was apparent to Mark. Brian helped him "solve many problems without calling Jim Foster for official technology support." Mark was aware of Brian's difficult family life, which had not improved despite the positive relationships he was building at the club. Brian was trying to move out and a paid position might make the difference. Mark offered to pay Brian as the lab manager on the condition that he did well in school. Soon after starting his job, Brian moved into a group home and started working to catch up with his graduating class. Brian was sixteen. He had only four high school credits with barely two years left if he wanted to graduate with his class.

Linking technology skills, positive socialization and a job were critical for Brian. He started taking education seriously. "Mark helped me understand that I needed to start life or I'd be too late. I needed to get in the mix, get my high school diploma or else I'd end up like everyone else" in the housing project. That's not what I wanted. I couldn't deal with that. It helped me realize that: 'Dude you got to get a high school diploma, you don't have any credits.' We started looking at Running Start [an alternative route to completing high school and transitioning into college] and things like that." Eventually, Brian enrolled at Lake Washington Technical College.

"Somebody was always calling me for help"

At roughly the same time that Brian began managing the lab, the club received a grant from Microsoft for new computers and software. "I had never opened a new computer before. I was trembling taking it out of the box," Brian recalls. Due to space limitations, the older, displaced computers needed to go. Mark Haines allowed Brian and select other students to take the old ones home. Brian was

Mark helped me understand that I needed to start life or I'd be too late. I needed to get in the mix, get my high school diploma or else I'd end up like everyone else [in the housing project]. That's not what I wanted.

Brian, on his relationship with his BGC mentor



Brian, at age 16, his staff picture taken at the Bellevue Boys and Girls Club.

thrilled to have his own computer to use, take apart and explore. Brian's computer was highly valued in the group home where he lived and gave him invaluable hands-on technical experience. He was becoming "the guy you call when your computer doesn't work. Somebody was always calling me for help."

Under the positive influence of Mark's mentorship and his own initiative, Brian was on track to graduate. During his final years of high school he went from working at the Hidden Village club to holding a part-time position at the main Bellevue Boys & Girls Club. After graduating he worked for Best Buy's Geek Squad before returning to Bellevue's Main club full time, where he took on the large responsibility of maintaining the Bellevue BGC web site as well as working out all the bugs of the network and online payroll system. Mark Haines played a key role in this lucky break as well.

Brian recalls with pride: "At the time they paid this guy to do it, but he was really sloughing it. Mark said, 'Hey Brian you have one weekend, if you can get this all up and running, they'll drop that guy. If you can do it, as one of our club kids, we'd love for you to get paid instead of him.' So in one weekend I went over everything that they did—the whole back end. I gutted it and rebuilt it. It worked beautifully."

Various shades of success: Making a difference at Boys & Girls Clubs

One of the hallmarks of the Boys & Girls Clubs of America movement is the fierce dedication and ongoing commitment of alumni to their club and the larger BGC

When the kids come here and they can't wait to see you and talk to you and tell you what they did, I feel like I'm really changing their lives. It's amazing to be a part of it. I really enjoy this job. I love coming here.

Brian, on the relationships that develop in BGCs

community. Alumni that return to work in clubs are called lifers. "We feel the connection to the club long after we're so-called 'boys and girls.' Lots of staff could get better paying jobs, but you know there's more to a job than money. We love it here," one lifer reported. The situation is similar for Brian: "When the kids come here and they can't wait to see you and talk to you and tell you what they did, I feel like I'm really changing their lives. It's amazing to be a part of it. I really enjoy this job. I love coming here."

Brian has his own IT consulting business, but wants to keep his full time job at the Boys & Girls Club for now. He recently turned down a large consulting offer at a local construction company, opting to stay on at the clubs

while he completes his degree. "People like me because I'm good at learning whatever needs to be done. I'm resourceful. I've found that it's easy for me to find jobs, the only thing holding me back right now is the piece of paper." And that piece of paper is no longer approval to move into a group foster home or a high school diploma; it's now a college diploma.

While technology served as an important entry point into the club and piqued Brian's interests and opportunities, the relationships that Boys & Girls Clubs nurture have proven fundamental. To echo the praise he expressed for Mark Haines' mentoring style, Brian is proud to play the role of the approachable yet strict guy: "I love to be able to be the cool teacher, the one that they like to come to even though you're strict, because I've learned you've got to be strict. They'll listen to you as long as you're fair." The importance of positive relationships is the bedrock for his future aspirations: "I can't wait to be a teacher. Middle school math, science and computers are what I want to do. I'd like to be able to establish myself financially before I do that, but if not, it would be worth it to have a job that I love. As long as I'm making it."

Lifelong Ties, Computers and Kids:

Community-Building and Technology Education in the Al Davies Boys & Girls Club

Boys & Girls Clubs of America (BGCA) are surprisingly similar. The federation has captured the benefits of scale while nurturing what's most innovative and personal about local control. They are fundamentally community based, made up of more than 4,300 independently operated clubs nationwide. And yet, clubs in Tacoma, Washington and Boston, Massachusetts share uncanny similarities. They share a sense of community. The ability to balance a cohesive national identity and scalable program support with local discretion is notable for donors and organizations seeking to replicate the impact of BGCs. It is a remarkable springboard for reaching youth; it is proving especially effective for technology access and training.

Echo Curry offers insight—insight into the link between computer literacy and education, the way BGC's mission tethers technology to the holistic well being of children, and the mutually reinforcing, virtuous cycle driven by a legacy of successful programs and BGC's community ethic.

Echo is the technology director at Tacoma's Al Davies Boys & Girls Club. Like many BGC staff members across the country, Echo began as a club member. "I started at South End," in Tacoma. "I did every program. Torch Club. I was Youth of the Year. I did what most teens did. I was getting older, a little bored with school, and I got interested in my friends and other activities, so I left. But eventually I came back and started volunteering." And

after graduating from the University of Washington, and recognizing the prominent role that technology was playing in Boys & Girls Clubs, she returned to the South Puget Sound system and was formally hired.

Technology, education and the well-being of kids

Although Echo's father was a maintenance man who "really pushed the technology angle" at home, it wasn't until



Echo and a student that won an MP3 player for winning a club digital arts competition. Echo solicits donations from community members for technology related prizes that spark and sustain student interest.

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Without access at home, how will they learn? Where will they go? It is vital that they feel confident, like they know what the Internet is about and what they can do with it. If they aren't comfortable, they will fall behind.

Echo, on BGCA Internet access and training

she attended the University of Washington that she got serious. "UW forced me to get online because the classes and teachers required it. To register for classes you need to be online, or you'd be pressing stars on the phone for the dial-up registration system, getting busy signals and not getting into the classes you want. Everything about UW relies on knowing technology, so I learned fast."

Other college experiences also shaped Echo's interest in education and technology. "I was involved with the Office of Minority Affairs—I did a lot of mentoring and tutoring at High Schools. I worked with new freshmen. College is a new world and I wanted to help in that way." She also worked with a nonprofit off campus that provided

technology curriculum to schools. Her understanding of the connection between computers, education and the economic and social well being of kids grew.

She is emphatic about the importance of introducing children to technology in a supportive and safe way. "Technology is everything. From the can opener, to the TV, to social networking. It is a critical part of everyday life. People all around [club members] are using computers and the Internet. Without access at home, how will they learn? Where will they go? It is vital that they feel confident, like they know what the Internet is about and what they can do with it. If they aren't comfortable, they will fall behind. The kids are using it, so they need to know how to be safe. They need to be able to find the things they're looking for. They need to be able to judge what is credible. They need to have fun. It's really important."

BGC technology for education

The more important technology is in the lives of children, the more important it is to get the approach right. Boys & Girls Clubs, because of their unique ability to maintain core values amidst a sprawling national network, are well positioned to provide technology access and training to kids that need it most. Their commitment to the holistic well being of the child makes BGC technology programs more likely to emphasize instrumental values. Computers support learning and socialization; they are not valuable in and of themselves.

Club Tech and BGC's platform of national resources is an important baseline that allows individual instructors to adapt their lessons based on the skill levels and interests of their students.

Clubs are highly attentive to the specific needs of their members. Staff members uniformly emphasize the voluntary, program-based nature of their organizations. According to one club director: "The kids do not have to be here. We are not a day care. If the programs don't capture their attention, we cannot force them to stay. This puts pressure on us to engage them, but it also gives us leverage if they're not behaving. 'Hey you're going to have to leave if you don't act right!' They take it seriously and so do we."



Club Tech and BGCA's platform of national resources is an important baseline that allows individual instructors to adapt their lessons based on the skill levels and interests of their students.

The way that Echo approaches and adapts her lessons is instructive. She pulls a thick folder from one of five plastic tubs filled with lesson plans and student progress charts. She explains a lesson for Black History Month for 10-12 year-olds. “We start with persuasion maps. What are the arguments you want to make? What evidence supports those arguments? How do we find the evidence? How do we find our sources? Do you just pull them off the web? Do we just copy them off someone else’s site and paste them into our site? No, we don’t. I focus on brainstorming and the planning exercises that happen before ‘technology skills’ come into play.”

We’re not using the tools to teach them to use the computer per se, we’re teaching them to use the computer to be educated.

Echo, on the utility of computers

Technology supports broader educational goals. Echo offers more detail, “We find resources on Martin Luther King Jr. online. We find timelines. We watch his videos. We’re not using the tools to teach them to use the computer per se, we’re teaching them to use the computer to be educated. There’s so much information out there. There are so many materials. We’re using the computer to educate ourselves. That’s the connection to technology.”

Baseline resources, discretion and digital arts

Through a grant from Microsoft, clubs have access to a suite of baseline curricular resources. The wide-ranging body of lessons and exercises provides a platform on top of which individual trainers adapt and innovate. “Club Tech and the digital arts curriculum are excellent,” says Echo. “I use some of the lessons exactly as they are. For others, I borrow pieces. I really try to make it relevant for the kids in the class.” Adaptation is standard procedure. Because the bases are covered, technology directors can spend more time on lessons that students need and demand most. Local clubs have discretion to borrow as needed, keeping their kids at the center of curricular decisions. “I don’t know what I’d do if I had to write all these lessons from scratch,” reports one technology director.

Competition, a birthright of clubs that grew out of athletic leagues, is also positively shaping technology education. BGC’s national digital arts festival, which gains credibility and interest because Microsoft sponsors it, has been replicated on a smaller scale by clubs and systems around the country. It has become a powerful unifying and motivating force. “They love the digital arts competition. They have made movies, Photoshopped pictures and built web sites. The competition is a rallying point. We kind of became a team,” reports Echo. “Borrowing the digital camera is a great way to keep them interested,” said another technology director. And multimedia, such as movie making and audio engineering, are increasingly seen as effective ways to attract older kids, including elusive teens that break away from the clubs. “We need to be better at getting them in here,” Echo points out, “because if they’re not here, they’re on the streets.”

Small prizes, such as candy or cash, are common incentives that boost interest. Echo sometimes goes further: “We gave out MP3 players, DVD players and flash drives that I get from private donors. I like to give technology related

They love the digital arts competition. They have made movies, Photoshopped pictures and built websites. The competition is a rallying point. We kind of became a team.

Echo, on BGCA technology competitions

prizes. I spend a lot of my time soliciting private donations. We also just got a grant for a digital camera, a scanner and Photoshop 6—which is difficult but I have a friend that is a photographer that comes in as a volunteer. He worked with them for a week, but I need more training. He was also a great resource because he’s DOING it. He is a role model showing them that there is a use for these skills down the road, out of school.”

Moving on, at some point

Echo is a lifer. It is not unexpected that she now teaches at Al Davies. Countless members across the country forge close relationships with mentors and return as volunteers



Echo and the Al Davies students show off certificates they earned for completing a digital photography program. Photography, multimedia and other digital arts are popular activities, especially with older kids.

and employees because “they want to give back.” Boys & Girls Clubs have developed a mechanism, a farm system, which nurtures the next wave of leaders while attending to the core mission. It is a virtuous cycle that addresses challenges, such as staff turnover and mission drift, that plague similar social service agencies. The better they serve kids and build community, the more likely kids are to give back as adults.

Relationships are fundamental to BGC, binding the network, drawing alumni back and ultimately serving kids. Echo explains: “Mentorships are very important. It’s about developing relationships. I grew up in a Boys & Girls Club and that’s why I’m here now. We deal with whatever they have going on in their lives. Some of these kids are here all day. Their parents drop them off at 7 in the morning. They go to school, and then come back. Their parents pick them up at 7 at night. We are their second and third parents. We help where they need it—clothes, research, whatever. The club is their home away from home.”

Technology is a critical component in the lives of these children. And the thriving BGC community ethic is especially important to attract and retain skilled technology trainers. Often, strong technology skills draw nonprofit employees into the private sector, accentuating staff turnover challenges around technology. In Boys & Girls Clubs, workers stay longer than economists might predict because of the community. “I will move on at some point. It’s not enough money for a family. And I have

other goals and dreams that are important to me,” Echo offers. “My Dad says I need to put these technology skills to use and go work for Microsoft. I may. But for now I like working with people—the kids and the community. I’m passionate about education.”

It’s about developing relationships. I grew up in a Boys and Girls Club and that’s why I’m here now. We deal with whatever they have going on in their lives....We are their second and third parents. We help where they need it—clothes, research, whatever. The club is their home away from home.

Echo, on the BGCA community

Becoming a Boys & Girls Club:

Libby Teen Center in Spokane, Washington

For 30 years, Spokane's Libby Teen Center has been a gang-neutral meeting ground where youth receive homework help, play basketball, learn about money management or job searching strategies, hang out with peers and get a warm meal. The founder, who was ready to retire so in the summer of 2007 he approached the local Boys & Girls Club, requesting that Libby become a teen center within the Boys & Girls Club network. He wanted teens to continue to have a safe space. "He recognized that many girls did not come because the only activity was basketball and he wanted that to change," recounts, Alise, the current Libby director.

Spokane's Boys & Girls Clubs had been wrestling with their own teen strategies when the Libby founder came knocking. In October the transition began. The shared vision of "what we all wanted this place to become" was immediately evident, recalls Alise, "a safe and supportive environment for teens, targeting both guys and girls." The center is changing, taking on more structured BGC programming. "We're seeing more people and more people coming more often. I don't want to scare them away with too many programs. I have to slowly introduce them because they're accustomed to just hanging out and playing basketball," she explains.

Food, hygiene and basic needs

While technology is a priority for the Libby members, it is one of many needs. Food is another. The club purchased a crockpot in October and uses it nearly every day. "I'd like to provide them something other than chili, soup or hotdogs but I have yet to figure out how." On special occasions and for homework achievements she orders pizza. A poster on the wall displays a chart with names and stars, indicating which members have completed their homework and are eligible for a pizza party.

The club addresses other basic needs. Many "parents are continuously unemployed, with no money for basic hygiene products." The Libby Club operates a small store that stocks basic hygiene supplies. This allows members to practice money skills while raising funds for the organization, and serving an important need. "Many of these kids don't brush their teeth, don't use deodorant and often don't bathe with soap. They just don't have the stuff at home," explains Alise. "I want to give them the opportunity to provide for themselves."

Jobs and technology

The youth want to provide for themselves and make their own money. "Many of them have asked me about finding work," Alise explains. "I've been bringing in guest speakers to inspire the kids and serve as examples of what they can do and become."

Technology is part of the story as well. Alise has brought her own laptop since day one because, "kids need to know how to use computers. We believe that kids must have Internet access at the clubs" to help with their homework, research and to look for work.

Significant barriers exist however. The club has two older machines that were donated. Students "can type their papers up and use PowerPoint," but more, newer machines would help. She expects to receive additional computers when the main Spokane club updates their machines and passes their old ones onto Libby. Though she'll only take 4 or 6 of them since she knows a couple of them don't work. When asked about technical support, she laughs. "I fix them! We don't have any tech support. Anyway, most of these kids know more than I do and sometimes they help fix things. You know, they're really into it. A couple of kids have even developed their own video games" outside

the club. Alise has high hopes for their future technology program: “I’m excited to think about our center being like the Bellevue club or the Tri-Cities.”

Changes are evident in the stories of girls

The twenty-five year old director reflects on the change she and others have seen over the past 8 months, “I notice that they’ll come and tell me ‘thank-you’ after I do nice things for them like bring in treats or special food. Before they would only ask if there was more.” That’s a good start that pleases the staff. At the most recent guest speaker event, the Spokane BGC executive director was visiting and noticed a change from a couple months back, “they all said excuse me and I heard no one using the ‘n’ word!”

Girls also have been coming lately and they’re enthusiastic about getting involved. “The girls are really active in Keystone,” the national BGC teen leadership program. In a recent Keystone project, each youth wrote a skit based on their own story and then created a video, borrowing Alise’s camera. One young woman’s project said that she comes to Libby because she feels accepted for who she is.

According to Alise, “she wants to do her homework and get good grades but her older brothers are in a gang and hang out at home all the time, smoking weed. They make fun of her for doing her homework. You know, it isn’t cool to get good grades. She had been embarrassed of her good grades until she started coming to Libby.”

Alise shares the story of another young woman who started coming to the club after being released from juvenile detention for shoplifting. At the time she was living with friends. The girl is off probation now and living at home again. “When she started coming to Libby, she was really hard, you know? Now she seems more approachable. She’s more open and talkative. The club was a place where she could get away from abusive relationships at home—her mother and her mother’s boyfriend.” While in juvenile detention the girl dropped out of school and is now motivated to return to school, completing her academic lessons at Libby. Alise has become her advocate, “she’s determined to go back. We tried to enroll her before the end of the school year but the school said that it was too late in the year. Next year.”

Staff Spotlight on Murray Bass:

Roxbury Boys & Girls Club

in Boston, Massachusetts

Murray Bass lived in New Jersey providing IT support and training to corporate clients. He had always been interested in technology, but something was lacking in his professional life. He desired to try something more meaningful and pursue his passion for working with youth. He returned to his roots, moving to Boston's Roxbury area where he was born. He applied to be the technology director for the Boys & Girls Clubs of Boston, with the intention to work there one year. That was nine years ago. Today, according to Alexander, the technology director of the South Boston Boys & Girls Club, "Murray Bass is the godfather of our technology program."

What he loves about his work are the "relationships with the kids" as well as having the "chance to teach them about what they can do with technology, something that is important to know these days for finding work. Technology skills will help them to pursue their own interests and to assist in their future professional growth. They are learning professional computer applications that are for the most part not taught in the schools."

A computer clubhouse and digital arts in a Boys & Girls Club

The Roxbury Club is one of twenty-two Boys & Girls Clubs nationwide that house Computer Clubhouses, or computer labs that are partly supported through a grant from Intel. These clubs have access to Computer Clubhouse resources plus ClubTech. The flagship Computer Clubhouse was an experimental project of the Boston Museum in collaboration with MIT's Media Lab to expose underserved youth to art, science and technology.

In the lab, Murray peers over the shoulders of 5th graders who are downloading their digital photos and organizing them in folders. "Now you know how to keep your desktops clean. Every time you make changes to an image, video or music file, just place it in your folder so we can keep track of it." The room has twenty computers around the periphery, all screens face the center where a big table holds digital cameras, a projector and a couple of laptops. Student artwork hangs artistically from the ceiling and walls.

There is a soundproof mixing room off the main computer lab where older kids record and edit audio files. "Here's a CD of our high schoolers' jazz band. They are really good. We're nearly sold out of CDs." He explains that all recording and editing was done by the teenagers themselves, "I was there to help if they had a problem, but they did the majority of the work themselves." Turning back to the 5th graders in the room, he assists a girl with video footage she just shot, "see, you can distort the color and sound with this command... Give it a try... Yeah, just like that! Nice work."

More coaching, less disciplining

He doesn't force the two disobedient youth in the corner to engage with the technology; he "coaches" them. "Imagine what you could do with your school reports now that you can alter any photograph that you have! Let me show you something..." Murray stresses the importance of certain skills. "It's important to know how to store your files for your own privacy. This is your folder to place in it, whatever you want to keep. And now that you each have your own folder, there's no reason for you to open anyone else's folder. You wouldn't want them to open yours either."

He sees his job as helping youth “find themselves, discover their talents and their unique skills that set them apart.” For those with an aptitude or curiosity for computers and technology, Murray provides challenging and rewarding hard work. Technology is how he mentors and encourages. He shared the story of Philip as an example.

Philip's story

Philip was a quiet 13 year old when he first started coming to the Roxbury club. Like many of his peers, his father was absent and his mother worked overtime to take care of the family. As Murray later learned, the pressures on Philip to join a gang were constant when he started coming to the club.

“At first he would come every couple of days, usually staying until 8pm when his mother came to pick his younger sister and him up. He must have liked hanging out at the club because he started coming every day.” Philip’s interest in technology grew and he started consistently choosing the Computer Clubhouse over other activities. “He would hang out with me late in the day when the other kids had gone home,” Murray explained. Philip took on more responsibilities and began helping Murray out by cleaning and organizing the computer lab, teaching other youth and assisting with large projects. “He was a real natural at

picking things up. He was quick with the stuff I showed him.”

Philip helped organize the Cyber Summit a couple of years in a row and took the lead in coordinating one year.” Cyber Summit is the Boston technology competition held every Spring that now, in its ninth year, hosts more than 25 clubs from up and down the East coast. The idea originated from Murray’s observations of swimming, baseball and basketball competitions between clubs; he decided to create a similar experience for youth interested in technology. Cyber Summit brings together volunteers (MIT students, local companies, and others) and after-school programs (predominantly BGCs, but not exclusively) for 24 hours of technology competitions.

At age 21, Phillip now does IT work for a Boston company. He’s taken some college courses and plans to continue. He occasionally stops by the club or gives Murray a call, just to talk. Murray smiles when he talks about Philip. “When Philip was awarded the Youth of the Year award I understood the importance of our friendship. His [Philip’s] speech was all about me, his time in the [Computer] Clubhouse and our relationship. He said that I was the closest thing he ever had to a father. He described the hours spent in the computer lab with me as having saved him from choosing a gang,” Murray recalled. “To hear that, meant a lot.”

Teen Participation, Gaming and Jobs:

Boys & Girls Club of Metro West

Marlborough, Massachusetts

“Up until this year I hated the gaming thing, it always seemed a waste of their time,” said Brent, the Metro West Club Tech director. Despite this skepticism, Brent applied for a grant for an Xbox for the teen center.

Club members had the idea of turning a storage space into an arcade-like game room. “We had a discussion (Brent and the teens) and the consensus was that if they could raise the money to change the room, then they could have their game room. The teens raised the money to pay for it. They chose the colors and painted the room. They bought the carpet. They did all the work and installed it all themselves.”

“I’ve always been a big believer of kids having a say in what happens,” he said. “It results in their buy-in and actually makes my job easier. I don’t run the center like a school or movie theatre, it’s their place, their teen center.” He is proud of his teens being able to compromise with each other and develop mature and diplomatic consensus building skills. The game room is a case in point.

The teens use the room a lot, regulating its use and scheduling competitions. “The majority of the time spent in the room is in their game leagues competing against each other, just like a sport league.”

“I’ve found that these competitions and the game leagues the kids have established are attracting teens that aren’t jocks. Maybe they are intimidated with sports like basketball or are generally more shy, less aggressive. I don’t know exactly what it is but these kids are comfortable [competing] in this gaming environment where they aren’t with sports ... They compete with concerts and other performance activities like Rockband, Guitar Hero and DDR

[Dance Dance Revolution].” It turns out that gaming is good exercise, too. “They really get into it until they are dripping with sweat.”

Spring job fair

The teen center is about more than “fun and games” however. According to Brent, “some kids need to work if they want to buy anything for themselves and sometimes they’re expected to help their families out. There’s a real push by some teens to find work.” Metro West began hosting a Spring job fair “in response to the growing number of kids that complained about not having a job or the skills to get one.” Hundreds of local teens fill the club gymnasium in the hopes of finding summer jobs. The fair attracts students who have stopped going to the club, “Some kids feel too old to go to a Boys & Girls Club and I understand, they’ve outgrown the club but can still come to us for help in getting a job.”

What started with 14 companies and 12 students four years ago has grown; last year over 200 students between the ages of 16 and 20 and 27 employers attended. Twenty five returned from the previous year. “This year we had five or six companies that are big hitters like local banks and an investment company.... It’s a more serious internship and furthers the kids’ opportunities.” Brent reports that the companies “are very impressed with the kids we attract” and the candidates’ seriousness in their job search.

In preparation, a workshop is held at the regional high school where a school counselor teaches “resume-writing skills and the soft-skills needed for an interview. I offer the same class here at the club but most attend the workshop at school since they can miss class to attend.” If teens haven’t attended the workshop at either the school or the

club, they are given “a crash course the morning of the career fair. They are shuffled into a different room upon arrival and receive the soft skills overview.” No student is allowed to enter unless they’re “dressed for success. They’ll wear a shirt and tie, polo shirts, some even come wearing suits.”

A lasting job resource

The club’s job fair has created a lasting impression that the club is resource, even after members have moved on. Brent recalls a past club member approaching him: “Initially I remembered who this kid used to be and thought he was trouble! But when he told me that he really needed a job I could tell that he had grown up and was serious. I felt good that he was coming to me still after these years of not being around.” Brent connected him to a job at Dairy Queen and shares that, “he’s been doing really well there the manager told me the other day.”

Employers who attended the 2008 Career Fair in Marlborough, Massachusetts:

- 99 Restaurant*
- Bertucci’s Restaurant*
- Digital Federal Credit Union*
- Future Skill Institute* (tutoring and career specialist)

- Marathon Staffing*
- Sovereign Bank*
- Best Buy
- Dairy Queen
- Kumon Center (also a tutoring company looking for peer tutors)
- Dunkin’ Donuts
- Papa John’s Pizza
- Walgreens
- Walking on Air Inflatables
- TJ Max
- Skyhawks Sports Camp
- McDonald’s
- Next Generations (Daycare Center)
- Noon Landscaping
- Panera Bread
- Pompositticut Day Camp
- Price Choppers
- Quizno’s
- St. Mary’s Credit Union (also hosted soft skills mini-seminar before students went into fair)
- Starbucks
- Target
- The Local Connection (transportation provider)
- Boys & Girls Clubs of Metrowest (us)

* Indicates new employer as of this year, 2008 Career Fair

Sampling, Indicators and Design

Strategy Ideas for Future Research

The diversity of clubs that fall under the BGC umbrella makes it difficult to construct appropriate large-scale comparisons. This annex is intended to help future researchers ask the “right” question and design appropriate sampling strategies so that accurate, useful generalizations are more likely. The following elements illustrate important differences between clubs. The questions identify relevant issues, not exact phrasing or survey techniques. Future research should have affirmative strategies to deal with these program fault lines and group similar clubs accordingly. National headquarters collects relevant data annually around a number of these issues, such as teen space and urban/rural locations.

Characteristics of club members

- What is the club’s annual membership?
- What is the average number of club members on a typical day after school?
- What is the range and distribution of club members based on age?
- What are the socioeconomic backgrounds of club members?

Staffing

- How many club staff are there?
- What are the ages of club staff?
- How long have staff members worked at the club?
- How many volunteers are there and what are their roles?
- How many staff members were once club members?
- Does the club have a “Club Tech” director?

- Does the club have a technology director whose title is not “Club Tech Director?”
- Who provides technical support for the computers (dedicated staff, vendor, volunteers, etc.)?
- What formal training have staff members had in youth development?

Type of facility

- Is it a licensed day care?
- Is it located in a school?
- Is it located on a military base?
- Is it located in a public housing project?
- Is it a teen center exclusively?
- Is a separate teen center embedded in the club?
- Does the embedded teen center have its own entrance?
- Is the club urban or rural?
- Are other social services agencies collocated with this club?
- Where does the club fit in the larger network (e.g., county system, main club, satellite club)?

Technology infrastructure

- How many computers are available for club members to use?
- What is the age and condition of the computers?
- To what degree is an audio lab present (keyboard, sound booth, software, dedicated workstations, on-line or offline audio tracks, professional mentors/volunteers)?

- To what degree is a video program present (dedicated cameras, Adobe software, online or offline videos, professional mentors/volunteers)?
- Are Apple computers or other special technology investments present?
- Do club members have access to Photoshop or other specialized Adobe products?
- Does the club have volunteers that support the technology program specifically?
- Does the club allow MySpace or Facebook?
- Have club members participated in the National Digital Arts Festival?
- Have club members participated in other technology contests outside of their own club?
- Have club members won any awards at these contests?
- How are technology activities customized, grouped or adapted based on the ages of club members (e.g., separate lab time, contest categories, MySpace or Facebook policies, youth development goals)?

Program design and policy choices

- Which Club Tech resources are most valuable in the club?
- What supplementary, non-Club Tech resources are used or have been developed in place of Club Tech resources?

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ABSTRACT

This report focuses on after-school programs as venues for teaching about information technology and for preparing youth for the 21st century workforce. Through a detailed examination of selected sites from Boys & Girls Clubs of America (BGCA), the report describes and analyzes formal and informal attempts to provide technology-related access and learning opportunities for children, including the underserved. The findings illustrate many ways that specific programs introduce and enhance technical skills, promote Internet savvy and build computer fluency while simultaneously reinforcing core social development outcomes.

KEYWORDS

BGCA, BGC, Boys & Girls Clubs, afterschool, youth, computer, technology, training, education, digital divide, ICT, ICTD, economic development, social development, workforce

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COVER PHOTO

Courtesy of Joe Sullivan

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