Leadership, Big Data, Digital Divide

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JLAMS, the electronic Journal of the Leadership and Management Section of the New York Library Association, completes its eight year, and we are privileged to introduce the Spring 2011-12 JLAMS.

JLAMS provides a valuable outlet for the dissemination of ideas, articles, academic papers, and essays of interest to library leaders at all levels and of all types of libraries: academic, public, school and special libraries. As library leaders, we have a lot in common, but we have few places to share what we know and what we learn. JLAMS was the first peer-reviewed journal in NYLA, and the original editorial board set a high standard for the publication and we are proud to maintain that standard. Readers of JLAMS are well-served by our team of referees, as are those whose contributions are published here. The high quality and high value of JLAMS can only be continued. Submissions are vitally important. For information on article submissions, editorial policy, a submission form and more, visit the JLAMS website page at http://www.nyla.org/displaycommon.cfm?an=1&subarticlenbr=318

Over the eight years that we have been publishing JLAMS we have enjoyed working with and learning from many interesting colleagues. This month we have four intriguing articles. Our lead article is most timely as it uses the amazing story of Sir Ernest Shackleton’s South Pole rescue to teach us how to be leaders. Our second article brings librarians and “big data” face to face, our third and major article helps us see how the digital divide is more than a sound byte and why we need to be engaged to reduce and ultimately eliminate this disparity of access, and our fourth article provides sensitive and helpful insights into library policies for children and teens.

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USING SHACKLETON’S CONCEPTS TO IMPROVE LIBRARY MANAGEMENT:
APPLYING THE LESSONS OF HISTORY’S GREATEST LEADER

By Roger Podell, Ed. D., J.D., M.L.S.

Abstract: Almost a century ago, explorer Ernest Shackleton led a team of scientists and sailors to the Antarctic. When their ship, the *Endurance*, was caught and crushed by ice, the men were stranded on a frozen sea with no hope of rescue. Remarkably, Shackleton led his crew to safety without losing one man. He understood how to motivate people even in the most difficult conditions imaginable. His actions inspired trust, loyalty, and produced results. Using the historical method, this paper identifies the elements of Shackleton’s leadership that can be adapted for use by today’s leaders. This paper also explores the leadership theories that Shackleton used, including Path-Goal, Transformational, Servant, and *In Extremis*. The leadership techniques and concepts that Shackleton used are global in nature and can be used to improve management in any field, including libraries. Specific concepts of effective leadership, including articulation of clear goals, inspiring loyalty and trust, risk-taking, communication, morale, and knowledge of human psychology are discussed.

INTRODUCTION

“For scientific discovery give me Scott; for speed and efficiency of travel give me Amundsen; but when disaster strikes and all hope is gone, get down on your knees and pray for Shackleton.” –Sir Edmund Hillary

On April 24, 1916, twenty-two men stood on a rocky, ice covered beach on the remote Elephant Island off the coast of Antarctica, and waved goodbye to six of their fellow crew members, including their commander, Ernest Shackleton. The men on the island knew there was a good chance their comrades would not survive the eight-hundred mile journey in their small boat, the *James Caird*, through the treacherous waters of the Southern
Ocean to South Georgia Island and rescue. They also knew the mission was their only hope for survival, as no one else in the world had any idea where they were. They put their faith in Shackleton and awaited their fate.

Almost a century later, people are still looking to Shackleton for help, but today they research his exploits in the hope of uncovering the secrets of effective leadership. Shackleton’s behaviors were both highly practical and inspiring. For leaders in the library field, Shackleton can provide insight into improving communication, follower morale, and task orientation. Today’s leaders can learn Shackleton’s management techniques for planning, revising plans as needed, and coordinating work activities, while simultaneously building trust and loyalty through selflessness and altruism. These transformational factors will improve staff motivation, job satisfaction job performance, while increasing retention.

**Shackleton and the Antarctic**

Shackleton was born in Ireland in 1874, and moved to England with his family ten years later. His father wanted him to pursue a career in medicine, but by sixteen he had left home to join the merchant marine. “I wanted to be free,” Shackleton wrote. “I wanted to escape from a routine which didn’t at all agree with my nature and which, therefore, was doing no good to my character.” Shackleton spent the next eight years living the difficult life of a young sailor, serving under various captains, and gaining valuable experience about different types of leadership.

As the nineteenth century drew to a close, interest in Antarctica was reaching unprecedented heights. First theorized by the Ancient Greeks, the great Southern Continent was not discovered until 1820. Between 1820 and 1895, Antarctica was surveyed by an international combination of naval and civilian expeditions, some of which landed on the continent and explored areas near the coastline.

In 1895, renowned British geographer Sir Clements Markham spoke at the Sixth International Geographical Congress, and declared that “exploration of the Antarctic regions is the greatest piece of geographical exploration still to be undertaken.” Scientists felt the continent might provide important data in meteorology, biology, and geography, while hunters hoped it might prove a profitable base for whaling and sealing operations. Governments were interested in the potential for military use and the patriotic glory of besting other countries in the race to plant their flag at the South Pole. Explorers felt personally compelled to conquer the foreboding landscape, treacherous conditions, and personal rivalries that Antarctica provided. To be first at the South Pole meant glory, fame, and fortune.

Shackleton became interested in Antarctic exploration, and secured a position aboard the *Discovery* expedition, led by British Naval Captain Robert Scott. The *Discovery* crew landed on Antarctica with the dual plan of scientific research and an attempt to reach the South Pole. On December 30, 1902, a team consisting of Scott, Shackleton, and Dr. Edward Wilson reached 82 degrees south, still over 400 miles from the Pole but 250 miles farther than anyone before them had achieved. The men were forced to turn back when their food supply ran out.

Shackleton returned to Antarctica aboard the *Nimrod* in 1908, this time in command of his own expedition. In January 1909 Shackleton and three crewmembers, including Frank Wild, reached a distance of ninety-seven miles from the Pole before being again forced to turn back. Shackleton would not have another chance to lead the first team to the South Pole, as Norwegian explorer Roald Amundsen reached it on December 14, 1911.
Amundsen had narrowly defeated Scott and his men, who reached the Pole on January 17, 1912. Scott and his team did not survive the return journey.

Since he could no longer be the first man to reach the South Pole, Shackleton, always adept at revising plans as needed, forged a new strategy: he would become the first person to traverse the continent, traveling directly through the South Pole and continuing on to the opposite coast. His ship, the *Endurance*, would deposit a team on the South American side of Antarctica, while another ship, the *Aurora*, would wait to pick them up on the New Zealand side. Crew members from the *Aurora* would travel inland, leaving stores of food and supplies for the expedition team to use on the second half of their journey. Funding for the expedition was secured, and by the summer of 1914 preparations were nearing completion.

**The Wreck of the Endurance**

On June 28, Archduke Ferdinand of Austria, first in line to the Austro-Hungarian throne, was murdered by a Serb nationalist. The assassination sparked World War I, and by August Britain was on the verge of war. Shackleton contacted the Admiralty, offering to cancel the expedition, and return the ship, stores, and crew to the war effort. Shackleton received a prompt reply from Winston Churchill, First Lord of the Admiralty, in the form of a telegram which read simply “Proceed.”

Shackleton had assembled an experienced crew for the journey. Frank Worsley, a brilliant navigator, was hired as Captain of the *Endurance*. Wild, Shackleton’s confidant from the *Nimrod* expedition, would serve as Second-In-Command, and Tom Crean, who had served on both of Scott’s expeditions, anchored a team of veteran sailors. Crean had distinguished himself as a member of Scott’s *Terra Nova* expedition when he walked alone for thirty-five miles across the Ross Ice Shelf to get help for two incapacitated men left stranded on the ice. Two physicians were selected, along with a team of scientists, including a geologist, physicist, biologist and meteorologist Leonard Hussey, who brought his banjo with him on the journey to Antarctica. The crew also included an artist, George Marston, and Australian Frank Hurley, expedition photographer. Shackleton informed all crew members that they would be expected to do any and all tasks required during the journey. Scientists and sailors alike would share equally in the difficult work ahead.

While the war began in Europe, Worsley and the crew of the *Endurance* sailed south, stopping in Buenos Aires, where Shackleton was due to meet them. The *Endurance* took on additional crewmen during their time in Buenos Aires. Percy Blackborrow, a nineteen year old Welsh seaman, asked to join the *Endurance*, but was not accepted. Undeterred, Blackborrow stowed away on the ship and was only discovered days later after the ship was back on the ocean. Shackleton is said to have jokingly told Blackborrow that if they were forced to resort to cannibalism during the expedition, he would be the first one they would eat. The stowaway was hired as a cook’s assistant, and became the youngest member of the crew.

Their final stop before heading to Antarctica was South Georgia Island, home of the Norwegian whaling station Stromness. The crew of the *Endurance* spent a month in South Georgia, waiting for ice in Antarctica’s Weddell Sea to break up, and creating a strong bond of friendship with the whalers. Finally, on December 5, 1914, the *Endurance* left port for the last time. The *Endurance*, under the command of Worsley, entered the Weddell Sea gingerly, wary of ice floes and icebergs. The men were keenly aware of the dangers, as the *Titanic* had been sunk by an iceberg only two years prior. The *Endurance*, specifically built to navigate through ice and to withstand the tremendous pressure ice creates, made some progress, but was quickly surrounded by immovable pack ice. Considerable efforts were made to create a lane through the ice, but my mid-January, the ship was completely stuck.
Shackleton originally planned to wait out the Antarctic winter, which would be at its height in July and August, then allow the ice to break up, and resume sailing towards the Antarctic coast in the spring. By mid July, however, Shackleton knew the ship was doomed. He told this only to Wild and Worsley, who wrote “Shackleton realized that we were only at the beginning of our troubles, and that he had better break the news to me at once.” Shackleton told his captain “You had better make up your mind that it is only a matter of time…Wild and I know how you feel about the *Endurance*, but what the ice gets, the ice keeps.” Wild reassured Worsley, telling him “We are not going to let the ice get us.”

Shackleton worked tirelessly to keep the crew from succumbing to the boredom and depression of being trapped in the ice for months. “To keep up the spirits of the men Shackleton now worked as I had never seen him work before,” Worsley recalled. He organized games of soccer and sled dog races on the ice, and various forms of nightly entertainment on board the ship, including card games, comedy skits, plays, singing contests, and lectures. In June, five months after the *Endurance* had become locked in the ice, morale was still high. Hurley wrote that the cabin “has an atmosphere poetic. Macklin in his bunk is writing poetical verses, and I am doing the same. McIlroy is arranging a décolleté dancing rig, whilst Uncle Hussey is being beset by applicants to rehearse accompaniments on his banjo.” Groups of men went out hunting for seals and penguins, which provided a fresh supply of meat, helping to fend off scurvy, a debilitating and potentially fatal illness due to lack of vitamin intake that Shackleton had suffered from during the *Discovery* expedition. Light was also an issue. In January, the Antarctic summer brings twenty-four hours of sunlight, but by June the situation is reversed, and entire days are spent in a gloomy darkness.

“Shackleton,” Worsley wrote, “had a genius—it was neither more nor less than that—for keeping those about him in high spirits. We loved him. To me, he was a brother. The men had felt the cold it is true; but he had inspired the kind of loyalty which prevented them from allowing themselves to get depressed over anything.” The loss of the ship also meant the expedition had failed before ever reaching Antarctica. “It looks as though we shan’t cross the Antarctic Continent after all,” a disappointed Shackleton confided in Worsley. “It is the men that we have to think about.” Shackleton would not allow himself to “display the regret that he felt nor to admit defeat.” He often spoke of starting up a new expedition and returning to Antarctica as soon as the War ended. “He laughed and joked as though he had not a care in the world, and only those who understood him well could gauge the depth of his real feelings,” Worsley recalled.

On October 24, ice tore a hole in the ship, and it flooded with water from the Weddell Sea. Despite heroic efforts from the crew to save the ship, within three days the *Endurance* was destroyed. The men now worked to unload what they could from the ship, including the dogs, supplies, sledges, fuel and food. Parts of the ship were already buried in the ice, and much of the food stores were not accessible. “The men worked almost in silence. To talk was impossible. Each man knew that it was the end of the ship. We had lost our home in that universe of ice. We had been cast out into a white wilderness that might well prove to be our tomb,” Worsley wrote.

“There we stood, the whole twenty-eight of us, awaiting our leader’s command,” Worsley recalled. Shackleton kept his remarks brief and concise. With hard effort and cooperation, he told them, they could reach land. The spirits of the men improved. They began to laugh, joke, and encourage each other. Their situation may not have warranted their optimism. Their only protection against the elements were linen tents “so thin that when there chanced to be a moon we could easily see it through the material,” Worsley recalled. Although they knew the dangers, the crew put their faith in their leader. “Every man among us had unbounded faith in Shackleton. We knew that if mortal man could lead us to safety, Shackleton was that man,” Worsley wrote.
Shackleton realized the importance of keeping the crew focused on a plan of action. Although they no longer had their ship, the men had three small lifeboats that could provide their salvation. Three hundred and fifty miles away lay Paulet Island, which Shackleton knew held a store of clothing, fuel, and food. The plan was simple, but would be a challenge. With the help of their sled dogs, the men would drag the lifeboats, and sledges packed with supplies, over the ice until they reached water. Once at the water’s edge, they would take to the lifeboats and sail or row to Paulet Island.

The plan to sledge soon proved impossible. The ice was not an even, smooth surface, but instead a series of ridges, pushed up by the same pressure that had stove the Endurance. To make matters worse, during midday the sun began to melt the snow that lay on top of the ice, creating a mushy mixture that was hard to walk on. After only one half mile, it was clear that the sledges could not bear the weight of the boats. Shackleton decided to strengthen the sledges with wood from the Endurance. The wreck was now highly unstable, partly submerged, and being held up only by the ice, which could shift at any time, sinking the ship. At great risk and working in freezing water, the men used crowbars and axes to extract whatever useful materials they could find.

A few days later the Endurance finally lost her battle with the ice and sunk.

The crew watched the ship go under. For a moment, a small space remained in the ice where the ship had been, but then the ice closed, and the Endurance was gone. The next day Shackleton planted the Union Jack that had been presented to him by the King. “The very sight of it heartened us. It seemed a splendid gesture of defiance to the ice to see the flag flying proudly, even though it were only over a floating, freezing wilderness.”

Further attempts at sledging proved equally futile. Shackleton quickly came up with a new plan. The men would establish camp on the ice, and let the slow migration of the floes shift them closer to land. Ocean Camp, as it came to be called, was quickly set up. The men lived in tents, slept in sleeping bags, and tried to fight off boredom. For eight weeks there was little to do. Occasionally parties would leave the camp to hunt seal and penguin to provide food and fuel, but otherwise, the men were bored and restless. Cliques developed, nerves frayed and tempers were short.

Shackleton, a keen judge of people, used tact, diplomacy and creativity to end the negativity and make sure the men got along well with each other. He arranged the tent assignments carefully, considering the personalities involved. When necessary, he would change assignments on a pretext, often bringing the unhappiest men into his own tent where he could keep a careful watch over them and improve their spirits. He would often remind the men that unity was the key to their strength.

Although he was the leader of the expedition, and already a legend in the field of exploration, Shackleton lived the same as any other crew member. He shared his tent as the other men did, ate the same rations, and did equal work. He sacrificed his best pair of boots to a crew member who needed them. His selflessness and positive attitude engendered a deep loyalty among his crew, who affectionately called him “The Boss.”

“Shackleton had a wonderful and rare understanding of the men’s attitude towards one another and towards the expedition as a whole. He appreciated how deeply one man, or small group of men, could affect the psychology of the others. Therefore he insisted upon cheeriness and optimism; in fact his attitude was, ‘You’ve damn well got to be optimistic.’ It was his knowledge of men, quite as much as his executive ability, that made him such a wonderful leader,” Worsley wrote.

By late December, after eight long weeks at Ocean Camp, the situation was beginning to change. Blizzards had swept the ice floe over one hundred miles, but had also damaged the ice, making it increasingly unstable. The
warmer weather of summer brought the relief of more light and fewer blizzards, but as the snow melted the men would sink up to their waists. At night, the snow melted under their sleeping bags and in the morning they would find themselves in small pools of water.

Another attempt at marching found that conditions had changed very little since their first attempt. Shackleton and Wild walked ahead of the men, trying to chip away the sharp points of ice and clear a path for the sledges. Since each boat weighed almost a ton, it could only be dragged if all the men pulled, so they began the tedious process of relaying. They would drag one boat, march back to the other, then drag that one forward. They were traveling three miles, two of which involved heavy pulling, for every one mile gained.

After a week of dragging they had covered only seven miles, and further marching was clearly pointless. The men were very disappointed. Although the work was difficult, it at least allowed them to take action in an attempt to save themselves. On January 1, 1916, they established Patience Camp on the largest ice floe they could find. They would be again forced to wait for the ice to drift towards land, and break apart enough for them to put their boats to use.

Physicist Reginald James described Shackleton’s actions during the time at Patience Camp. “My own realization of his best qualities came after the crushing of the ship when the party took to the ice... He felt an actual relief when the worst came, because he then knew exactly what had to be faced. The whole of his mind then turned to that one problem, of landing the party without a casualty. Not only the main problem, but its details absorbed him,” James recalled. “He was an excellent tent mate, and once inside the tent dropped to a very large extent the Commander.”

As April approached, the ice floe that was home to Patience Camp had grown significantly smaller and weaker. On March 31, the men detected a “faint swell beneath the ice,” which meant they were close to open water. They had not experienced the ocean’s swell for fourteen months, and their spirits lifted. On April 9, the floe was too unstable for the men to remain on it, and they launched their three boats, the James Caird, the Dudley Docker, and the Stancomb Wills. They began to row for Elephant Island, which was at least 60 miles away. The journey was extremely hazardous, as the crews battled huge waves that carried giant pieces of ice that battered the small boats. There were only four hours of light each day, and the men were constantly pursued by killer whales, which could easily have toppled the boats.

After their first day of rowing, the crew made camp on an ice floe, which seemed preferable to spending the night in the boats. While the men slept in sleeping bags huddled inside their tents, Shackleton walked the ice, sensing danger. The ice floe suddenly split apart, dropping one sailor, still in his sleeping bag, into the frozen water. Shackleton reached into the water and heroically pulled the man back onto the ice. All supplies were immediately transferred to a more stable section of the ice flow. During this operation, a small section of ice on which Shackleton was standing broke free, stranding him as it drifted into the darkness. Crewmembers quickly launched a boat and recovered Shackleton, “The Boss,” by tracking his voice.

After a second dangerous night spent on the ice, Shackleton decided they would no longer leave the relative safety of the boats. Unfortunately, despite their rowing, the winds and currents had actually swept them thirty miles farther away from Elephant Island. Shackleton wisely kept this information from the crew, in an effort to maintain their morale.

By April 14, after six days at sea, the open ocean had taken an enormous toll on the men. Once they cleared the ice, large waves crashed into the small boats, constantly soaking the men, and the bitterly cold temperatures kept them in a frozen state. They went days without sleep, and their bodies ached. With no ice nearby, they no longer
had a source of fresh water, and rapidly began to dehydrate. It was at this crucial time when one of the men spotted Elephant Island. At first the island was a wonderful relief for the exhausted men. They were able to stand on solid ground, had access to ice which they could melt for drinkable water, and there were seals, elephant seals, and penguins to hunt for food.

It soon became clear that island was far from paradise. The rocky beach and mountainous interior provided little cover from the vicious, freezing winds, and no one knew how long the food supply would last. Many of the men were already suffering from the effects of the bitter cold. Rescue was extremely unlikely. No one in the world had reason to think the crew of the Endurance would be marooned on Elephant Island, and there was little chance of any ships stopping there or even passing close by. In fact, Shackleton and his crew were probably the first people to ever set foot on the remote island.

Shackleton told Worsley that a boat journey would have to be made, despite the enormous risk of sailing a small boat through the Southern Ocean. He was determined not to let the crew starve to death. Shackleton addressed the crew, explained the realities of their chances for rescue and survival, and told them he was going to take a boat and sail for help. He told them plainly, “I’m afraid it’s a forlorn hope, and I don’t ask anyone to come who has not thoroughly weighed the chances.” Despite the suffering of the prior months, the extreme hardships that the crew of the boat journey would certainly endure, and the enormous risk, every man instantly volunteered. Worsley wrote “It was a dramatic scene and one that I am not likely to forget…Yet so strong was the men’s affection for Shackleton, so great was their loyalty to him…It must have been a great moment for Shackleton. There was a long and pregnant pause before he replied, and then said only three words: ‘Thank you, men.’

Port Stanley in the Falkland Islands was 540 miles away, but lay in the opposite direction of the prevailing winds and currents. Shackleton and Worsley decided that their target would have to be South Georgia Island, home of the Stromness whaling station the Endurance had left from sixteen months earlier, and which lay eight hundred miles away.

The James Caird, the largest of the three small boats at just over twenty-two feet, was selected for the journey. McNeish, the carpenter, used the mast from the Stancomb Wills to strengthen the keel of the James Caird. There was not enough wood to create a true deck, but a frame for one was created using sledge runners and box lids. A frozen length of canvas was thawed out one foot at a time over a blubber stove. Once thawed, the canvas was stretched over part of the boat and nailed into place, providing the only covering that would protect the men from the constant onslaught of freezing waves. “It certainly gave an appearance of safety to the boat, though I had an uneasy feeling that it bore a strong likeness to stage scenery,” Shackleton wrote. Marston, the expedition artist, used his oil paints mixed with seal’s blood to caulk the seams, making the James Caird as seaworthy as possible.

Worsley and Shackleton disagreed about the amount of ballast the small boat would require. Shackleton was gravely concerned that the James Caird would capsize in rough seas, and insisted on over a ton of ballast. Worsley believed that half of that would be sufficient, as the weight of the men and stores would add additional weight. Shackleton prevailed in this debate.

The expedition doctors, Macklin and McIlroy, asked Shackleton to take Blackborrow, the young stowaway, on the James Caird. Blackborrow was suffering from frostbitten toes, and it was feared gangrene would set in if he remained on Elephant Island where they had limited ability to treat him. Shackleton, though very concerned over Blackborrow’s health, realized that adding him to the crew would jeopardize all of them. Worsley believed this decision saved Blackborrow’s life.
The Voyage of the James Caird

On April 24 the James Caird left Elephant Island. If the plan was successful, rescue could be anticipated in four to five weeks. Worsley steered the James Caird north in an effort to escape pack ice that was rapidly forming around the island. By nightfall they were free of the ice, and Shackleton sent everyone except Worsley below to rest. Shackleton told his Captain “We’ve had some great adventures together, Skipper, but this is the greatest adventure of all. This time it really is do or die, as they say in the story-books.” Shackleton established a strict routine of hot meals and drinks for the crew every four hours. He kept a watchful eye on each man, and if one seemed particularly cold or was shivering, Shackleton would have a hot drink served immediately. Shackleton would not say who the drink was for, so that no one man became anxious about himself.

Conditions on the boat could not have been worse. The men were soaked by waves crashing over the boat every few minutes. What little sleep they were able to get below the canvas covering was cramped and highly uncomfortable. The men often awoke in their sleeping bags with a feeling of being smothered and buried alive. While three men slept, the other three worked, with one steering and the other two pumping water from the boat. This job was particularly difficult. One man had to hold a brass tube against the bottom of the boat with his bare hands, while another pushed the handle up and down. The men pumping took turns every five minutes, as the man working barehanded in the icy water needed relief. Each hour, the men would rotate jobs until the next watch relieved them.

It is difficult to imagine the dangers and discomforts endured by the crew of the James Caird. The sleeping bags, made of reindeer skin on the outside and hair on the inside, began to molt from the constant wetness. Hair was everywhere on the boat, in the men’s eyes, noses, and mouths as they tried to sleep, in the vital water pump, and even in their food. Worsley remembered “we couldn’t help dirt, but we did draw the line at eating hair.” By their eighth day on the open ocean, they were over halfway to South Georgia. The men spoke of a belief that many sailors share, that what they have already done, they can do again. This was cause for optimism, but the men were still suffering greatly. Shackleton developed sciatica, a painful condition that he tried to hide from the men.

Shackleton had taken his turn steering one night when he observed a long white line in the distance, so long and so high that he mistook it for a clearing sky. Moments later, he realized the white was the crest of a tidal wave. He yelled to the men “Hang on for your lives!” as the giant wave crashed over the boat. “During twenty-six years’ experience of the ocean in all its moods I had never seen a wave so gigantic,” Shackleton remembered. “We felt our boat lifted and flung forward like a cork in breaking surf. We were in a seething chaos of tortured water; but somehow the boat lived through it…we bailed with the energy of men fighting for life.”

By the thirteenth day, the James Caird was closing on South Georgia.

Worsley’s navigation had to be precise, however, because if they missed the island, they would be unable to turn into the wind and currents, and would almost certainly die before they could reach the coast of Africa. The next day, they spotted the mountainous peaks of South Georgia. Shackleton admitted to Worsley he had been wrong about the necessary amount of ballast, and that the journey would have been shorter if the James Caird had carried less weight. “Not every leader,” Worsley wrote, “after he had brought his men safely through, would have conceded that he had made even a small mistake.”

Crossing South Georgia Island

Not surprisingly, the landing on South Georgia was only the beginning of yet another dangerous adventure. The James Caird had come ashore on the opposite side of the island from the whaling station, and the dangers of...
being crushed against the reef or swept out to sea made it too risky to attempt to sail around the island. Shackleton chose to walk across South Georgia, much as he had planned to traverse Antarctica. To cross South Georgia, he would have to scale the uncharted mountains and glaciers that stood between his team and the Stromness whaling port.

Shackleton selected Worsley and Crean to join him on the overland journey, while the three other crewmembers, McNeish, Vincent and McCarthy, still weak from the boat trip, would stay behind. On May 19, at two a.m., Shackleton told Worsley “We will start now, Skipper.” The mountains of South Georgia formed a five peaked “hand,” and the men hoped to descend one of the four passes between the peaks. As they climbed higher, the temperature dropped. Worsley’s feet were so cold he thought he was suffering from frostbite. Shackleton, too, was suffering, as he was wearing leather boots, rather than the standard boots used on the expedition. “The reason why Shackleton was wearing the colder leather boot was that there had been a shortage of footgear, and it was his rule that any deprivation should be felt by himself before anybody else,” Worsley wrote.

Shackleton, Worsley and Crean could not descend the first three mountain passes, as they led to a steep, sheer drop. The fourth and last pass seemed equally impossible. As night began to fall, Shackleton knew they had to get down, or they would certainly die of exposure. “Down below us was an almost precipitous slope, the nature of which we could not gauge in the darkness and the lower part of which was shrouded in impenetrable gloom. The situation looked grim enough. Fog cut off our retreat, darkness covered our advance,” Worsley recalled.

Shackleton stated “We’ve got to take a risk. Are you game?” They first attempted to descend the slope by cutting steps into the ice, but after covering only one hundred yards in thirty minutes, it became clear this method was impossible. Shackleton suggested the men sit in a row on top of their coiled rope and slide down the mountain. “It’s a devil of a risk, but we’ve got to take it,” Shackleton stated. This idea was not well received by Worsley and Crean, but they were out of options.

They slid, very fast, down the steep slope of the mountain. “We seemed to shoot into space,” Worsley wrote. “I was grinning! I was actually enjoying it. It was most exhilarating. We were shooting down the side of an almost precipitous mountain at nearly a mile a minute. I yelled with excitement, and found that Shackleton and Crean were yelling too. It seemed ridiculously safe. To hell with the rocks!” They slid for about a mile, began to slow down as the slope leveled off, and miraculously landed in soft snow. Unhurt and relieved, they shook hands.

At seven a.m. on the morning of May 20, 1916, the steam whistle blew at the Stromness whaling station. It was the first sound of civilization Shackleton, Worsley and Crean had heard in almost two years. Again the men shook hands. “For each of us recognized that this was an occasion on which words were inadequate,” Worsley wrote. The men rappelled down a final obstacle, an icy waterfall, and by mid afternoon they arrived at the whaling station. They had been marching up and down mountains, with no sleep and stopping only for meals, for thirty six hours.

**The Rescue**

The three men on the other side of South Georgia were quickly rescued. Worsley and two Norwegian sailors picked them up. McNeish, Vincent and McCarthy expressed surprise that at least one of the men of the *James Caird* was not in the rescue party. Although they had been with Worsley every day for two years, they did not recognize him after he shaved, bathed, and changed clothes.

For the men on Elephant Island, the situation had been miserable. The men had attempted to construct a snow cave, but found it impossible. They were forced to live under the two boats turned upside down. Canvas was used
for a makeshift floor, and also for walls that extended from the edge of the boats to the ground. Snow was packed around the canvas to trap what little heat was created by the cooking stove. Inside the shelter it was cramped, dark, and no one could stand up. The men dealt with bitter cold, boredom, and the fear of never being rescued.

Blackborrow’s frostbitten toes became gangrenous, as Drs. McIlroy and Macklin had feared. Under the overturned boats, using candlelight, the two physicians amputated the toes, prevented the spread of gangrene and saved the young stowaway’s life. It had now been close to four months since Shackleton and the crew of the *James Caird* had left Elephant Island. Despite Wild’s best efforts, the men were losing hope. As the seals and penguins migrated away, the food supply had become dangerously low and the men grew increasingly concerned about the very real possibility of starvation.

Upon reaching South Georgia, Shackleton immediately made plans to save the men stranded on Elephant Island. The first three attempts were stopped by pack ice, but a fourth attempt was successful. On August 30, 1916, Wild, in an effort to maintain the morale of the crew, gave his daily shout: “Lash up and stow, boys, the Boss may come today!” Unlike earlier exhortations, that day the words proved true. Shackleton rowed to the rocky shores of Elephant Island, trying to count the number of figures on the beach. When close enough, he shouted “Are you all well?” and Wild replied that they were.

**Shackleton’s Application of Leadership Theories**

Path Goal Theory, first conceptualized by House (1971), was utilized by Shackleton with positive results. House’s original version of Path-Goal Theory stated that the “motivational function of the leader” included “making the path” to “work-goal attainment…easier to travel by clarifying it, reducing roadblocks and pitfalls, and increasing the opportunities for personal satisfaction en route.” House identified two key leader behaviors: articulating the goal and meeting follower needs. With the *Endurance* lost and the crew marooned on the ice, Shackleton employed Path-Goal Theory, providing his men with a clearly articulated vision of a goal (reaching safety) and a path to reach that goal (dragging the boats to the water’s edge and rowing to land). Shackleton worked to clear obstacles from the path, sometimes literally doing so by breaking up ice ridges.

House and Mitchell (1974) expanded on House’s original 1971 concepts and suggested that Supportive Behaviors were necessary for effective Path-Goal leadership. Shackleton exhibited the elements of Supportive Behavior: providing guidance, demonstrating concern of the welfare of his men, and establishing a positive work environment. He demonstrated what House and Mitchell identified as Directive Behaviors, including scheduling, coordinating, and creating procedures and rules. House and Mitchell believed these techniques provided “psychological structure,” and Shackleton used these on a daily basis. Meals and work schedules were set, tent and work group assignments were carefully coordinated, and procedures and rules were made clear. Shackleton rearranged tent assignments during the long stays at Ocean Camp and Patience Camp, and rotated work assignments and schedules. Shackleton further exhibited what House and Mitchell termed Achievement Behavior, which revealed high expectations, showed confidence, and encouraged excellence. Shackleton had great respect and high expectations for Worsley and Wild, his two top aides, and demonstrated confidence in them, asking Worsley to navigate the eight hundred mile journey in the *James Caird* to South Georgia, while leaving Wild in command of the stranded men on Elephant Island.

One of Shackleton’s few errors during the *Endurance* expedition was his failure to heed Worsley’s advice to carry less ballast on the *James Caird*. By discussing the issue with Worsley, Shackleton engaged in what House and Mitchell termed Participative Behavior, which encouraged follower involvement in decision making. Although
Shackleton made the wrong decision by not following Worsley’s suggestion, he impressed the *Endurance*’s captain by admitting his mistake once they reached South Georgia.

Empirical research into Path-Goal Theory has produced mixed and questionable results. House (1996) admitted that much of the research into Path-Goal Theory was faulty due to the use of “approximate measures” for which he created a precedent. Schriesheim and Von Glinow (1977) stated the questionnaires used to study Path-Goal Theory “differed substantially from the constructs of the theory,” and measured “very different kinds of behavior…which are extraneous…to the theory’s leadership constructs.” Yukl (1994) argued that deficiencies in Path-Goal research had resulted in insufficient testing of the theory’s validity,” and Indvik’s (1986) meta-analysis of forty eight Path-Goal studies produced mixed results of its effectiveness. Shackleton’s use of several elements of Path-Goal Theory provides strong evidence of its effectiveness. Further, the fact that Shackleton led his entire crew to safety demonstrated that House’s 1996 reformulated version of Path-Goal Theory, which included effectiveness for an entire work unit, was accurate.

Deming (1982) successfully put leadership concepts similar to those in Path-Goal Theory into practice by modernizing Japan’s postwar industrial economy through quality control techniques based on statistical principles. Deming believed the goal of leadership was to improve employee performance, quality, production, and “bring pride of workmanship to people. Put in a negative way, the aim of leadership is not merely to find and record failures of men, but to remove the causes of failure: to help people do a better job with less effort.” Shackleton’s efforts are in line with Deming’s concept that leaders should help individuals “do a better job,” and “eliminate obstacles.” These concepts mirror and support Path-Goal Theory.

To effectively implement Path-Goal Theory, potential obstacles must be anticipated, along with a contingency plan in place to address these obstacles. As a leader, Shackleton was always thinking about the future, revising his plans as necessary, and preparing as much as possible for any eventuality. Lionel Greenstreet, the *Endurance*’s First Officer, described Shackleton this way: “He had a quick brain, and he could visualize things ahead, and as far as he could he safeguarded any eventuality that was likely to occur.” Scharmer (2009), creator of Theory U, believed this forward-thinking approach was the correct one for an effective leader, rather than keeping the status quo or trying to return to an idealized past. Scharmer defined this approach as “leading from the future as it emerges.”

Shackleton’s greatest leadership accomplishment was leading the men of the *Endurance* to safety after the ship was caught in the ice and crushed. He outwitted and outmaneuvered the multitude of potential problems that might have brought the *Endurance* expedition to a tragic fate. A key to his success, and a recurring theme of his leadership was his ability to adapt to changing situations, a manifestation of Scharmer’s concept of leading from the future. Once the *Endurance* was crushed, Shackleton formulated a plan to march toward open water, dragging the boats behind them. This plan was an immediate failure. Pressure ridges and soft surfaces made marching almost impossible, and the sledges were not strong enough to bear the weight of the boats. Shackleton revised his plan, and ordered the men return to the wreck of the *Endurance* to gather wood to strengthen the sledges. Worsley wrote “No matter what turns up, he is always ready to alter his plans and make fresh ones.”

The reinforced sledges worked no better, and Shackleton was again forced to revise his plans, asking the men to accept a long wait at Ocean Camp, while they waited for the pack ice to drift northward. Over five months later, Shackleton attempted a second march, but sedging conditions had changed very little, and Shackleton soon abandoned the trek and established Patience Camp. Shackleton’s ability to revise his plans as needed is the application of House’s Path-Goal concept of removing “roadblocks and pitfalls” from the path. Completely isolated, with no possibility of outside help, Shackleton was forced to constantly consider possible obstacles,
create contingency plans, and act on them as required. In this way he applied the principles of Path-Goal Theory: articulating a clear vision of the goal, clearing the path, continually removing roadblocks, and finally attaining the goal. His success strongly supports the Path-Goal model, supplemented by Theory U.

**Transformational Leadership**

Shackleton used Path-Goal Theory and an awareness of human psychology to provide the basis of their approach to leadership. His leadership went beyond this level however, as he inspired trust and loyalty among his men. This profound transformation in followers, to cause them to want to follow the path and reach the goal articulated by the leader, is a key element that builds on the Path-Goal structure.

Burns (1978) suggested that Transactional Leadership, in which leaders exchange rewards for the efforts of followers, with reward contingent on performance, “must lead to short-lived relationships,” and ignored the crucial element of follower motivation. He suggested that Transformational Theory was a more profound approach to leadership that inspired followers to want to achieve goals on higher levels. Bass (1990) agreed, and noted that transformational leaders generate trust, respect, and commitment.

Shackleton’s ability to engender trust and loyalty are examples of his ability to profoundly transform individuals and the group into a cohesive unit. This ability, coupled with his limitless energy and optimism, is as much responsible for the survival of the crew of the *Endurance* as the seal meat they lived on. Bass wrote that transformational leaders inspire people to believe in long term goals. Shackleton made the men of the *Endurance* share in his belief that through hard work and cooperation, they would eventually find their way back to civilization and rescue, even though such a plan might take months. As the men on Elephant Island waved good-bye to Shackleton and the crew of the *James Caird*, their trust in him was complete, and to the degree they could, given the circumstances, they were as optimistic and cohesive as possible.

Shackleton elevated leadership from the pragmatic structure of Path-Goal Theory by adding the transformational layer of inspiring trust and loyalty. He accomplished this by words and deeds that are elements of Servant Theory. Six years after House had introduced Path-Goal Theory, Greenleaf (1977) proposed Servant Theory, stating that “the servant leader is servant first…It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead.” Greenleaf viewed leadership as an integral element of positive societal development. A service oriented approach, he believed, was the style of leadership that would most benefit humankind. Greenleaf believed that the true nature of leadership was to allow individual followers to grow, personally and professionally, and that this consistent individual growth would ultimately lead to overall societal improvement.

After Greenleaf passed away in 1990, many of his earlier writings were re-released, and the concept of servant leadership was revived by both academics and popular authors. By 2002, servant leadership was continuing to build a following among both groups, although evidence of its success was largely anecdotal. In the first decade of the 21st century, various researchers began to devise scales to measure the effectiveness of servant leadership, but by 2009 evidence was still unclear and there were numerous criticisms of the rigor of the measurement techniques being used.

Reed, Vidaver-Cohen and Colwell (2011) created dimensions to measure the behaviors associated with Servant Theory, including empathy, awareness, listening, foresight, community building, commitment to individual growth,
and stewardship. Five first order factors were generated from their results: interpersonal support, building community, altruism, egalitarianism, and moral integrity.

Shackleton demonstrated altruism through his selflessness, and egalitarianism through his equal sharing of work and rations. He worked tirelessly to build and strengthen the “community” of the crew, keeping them focused, optimistic, and continually reminded them that their hope for the future lay in their unity. The fact that crew morale remained high during the long periods on the ice is a testimony to Shackleton’s leadership and gives strong support to the notion that certain elements of Servant Theory are correct. Shackleton’s primary goal was to successfully lead the expedition to its stated goal of traversing Antarctica, and he was not, to use Greenleaf’s definition “servant first.” Though Shackleton did not become a leader specifically to serve, once in the role of leader his focus was on placing others first. When the success of the expedition was no longer possible, Shackleton turned his focus to the well being of the crew, and implemented many of Greenleaf’s concepts.

During the darkest hours of the Nimrod expedition, when the men were surviving on starvation rations, Shackleton exhibited his selflessness by privately forcing his only breakfast biscuit on Wild, who was suffering from dysentery. Wild’s diary entry reveals the generosity of this action, and the appreciation he felt for it. “I do not suppose that anyone else in the world can thoroughly realize how much generosity and sympathy was shown by this; I do. By God I shall never forget it.”

Shackleton’s act inspired a level of gratitude, trust and loyalty in Wild that would be difficult to measure. Suffice to say that later during the same journey, while they were starving and bitterly cold, Shackleton asked Wild if he would return with him on yet another journey to the Antarctic. Wild wrote “without any hesitation I replied ‘yes!’ and true to his word, accompanied Shackleton on the Endurance expedition and again on the Quest expedition.

Scott had requested that Shackleton not use McMurdo Sound as his base of operations in Antarctica, and Shackleton had agreed, but upon his arrival at the Bay of Whales aboard the Nimrod, Shackleton found it unsafe. He refused to have his men camp on ice that might calve and plunge into the sea. Shackleton’s decision not only forced him to break his promise to Scott, but moved his base farther from the Pole. This decision demonstrated Shackleton’s willingness to place the safety of his crew over his personal ambition, and as he failed to reach the Pole by only ninety-seven miles, it was a decision that likely prevented him from being the first man to reach the South Pole. Years later, Amundsen risked wintering at the Bay of Whales during his victorious race to the bottom of the world. The section of ice did, in fact calve away from the ice shelf in May, 2000.

In Extremis theory (Kolditz, 2007) suggested that successful leaders in dangerous situations who share the same risks and live the same way as their followers engender respect and loyalty. Shackleton ate the same rations, lived in the same tents, did the same work, and took the same, if not greater risks, than his crew. Shackleton embodied management expert Peter Drucker’s concept that “Leadership is not rank, privileges, titles, or money. It is responsibility.” Shackleton insisted that every member of the crew share the work equally, which meant that university scientists did the same work as sailors. Physicist Reginald James wrote “I do not think there is any doubt that we all owe our lives to his leadership and his power of making a loyal and coherent party out of rather diverse elements.”

**Keeping Morale High**

Shackleton expanded on House and Mitchell’s concept of providing psychological structure by using knowledge of human psychology to keep the men optimistic during difficult periods of stress, danger, or inactivity. In his
Theory of Profound Knowledge, management expert W. Edwards Deming suggested that the transformation of an individual or a group requires that a leader have a working knowledge of human psychology. Shackleton’s insight, what Worsley called his “genius,” was to recognize the importance of the mental state of the men, keep steady observations of them, and take action as required to maintain the mental well being of the group.

Shackleton’s success in saving his men demonstrated his deep understanding of the psychological element of human nature. History is replete with stories of shipwrecks and other disasters which resulted in murder, mutiny, cannibalism, insanity, and other horrors that occurred more as a result of psychological stress than of a lack of food, water, or shelter. Greenstreet was asked, in light of the tragedies of other Polar expeditions, how the men of the Endurance had survived. His reply was simply to say “Shackleton.”

When the men of the Endurance witnessed the sinking of the ship, the event had a profound effect on them, even though the vessel had long been rendered unusable. The following day Shackleton planted the British Flag at the site of the sinking. Shackleton’s awareness of human nature and psychology was a key element and recurring theme of his leadership in Antarctica. During the long periods of inactivity at Ocean Camp and Patience Camp, he paid close attention to tent assignments, matching individuals based on personality and changing assignments when necessary to keep cliques from developing and to maintain harmony among the group. Changes in tent assignments were done on pretext, and Shackleton brought the unhappiest men into his tent where he could personally work to improve their attitude.

Conclusions: Application of Shackleton’s Leadership to Library Management

Shackleton’s true skill as a leader emerged when disaster seemed imminent. He had a sixth sense that helped him consistently make good decisions, and benefited from a few miraculous events that seemed to indicate that the men of the Endurance were not destined to die on the Antarctic ice, in the waters of the Southern Ocean, on the rocky beaches of Elephant Island or the mountains of South Georgia.

Shackleton’s successful use of Path-Goal Theory, under very difficult conditions, suggests the usefulness of the Path-Goal concepts. An effective leader clearly articulates a goal and the path that will be used to reach it, and continually clears the path of any obstacles. Possible obstacles that may occur are considered and prepared for. Revisions are made as necessary to keep the goal in sight and the path clear. Clearing the path is a broad leadership idea. It embodies the Path-Goal concepts of providing supportive behavior, directive behavior, achievement behavior, and participative behavior. Leaders using these behaviors set high expectations, demonstrate confidence, and encourage excellence. As John Gardner, advisor to presidents from Kennedy to Reagan noted, “If one is leading, teaching…directing, guiding, helping or nurturing, the whole tone of the relationship is conditioned by one’s faith in human possibilities…When the faith is present in the leader, it communicates itself to followers with powerful effect.” Leaders must believe in the potential of their followers, if they want to impact follower motivation. There is also a strong psychological element of Path-Goal Leadership, which includes providing structure, having knowledge of individual and group psychology, and maintaining a keen awareness of the interaction within the group.

Shackleton demonstrated that there is more to effective leadership than establishing the goal and clearing the path. Trust and loyalty, inspired by a genuine concern for followers will profoundly transform individuals and ultimately the entire organization. This Transformational Leadership occurs when trust and loyalty are inspired by acts of selflessness, humility and altruism which are elements of Servant Leadership. Shared risk, shared work, and shared lifestyle, elements of In Extremis Theory, generate further follower respect and allegiance. These
behaviors elevate the Path-Goal process above the level of a mere transaction, to a level of individual and organizational transformation, as Deming outlined in his Theory of Profound Knowledge.

These elements of this amalgam of theories can be operationalized by any leader, in any situation. Gardner stated, “Leadership is not a mysterious activity. It is possible to describe the tasks that leaders perform.” Shackleton’s techniques of effective leadership, carried out at the bottom of the world, are global in nature.

The psychological element of effective leadership should not be underestimated. Shackleton’s ability to keep his men optimistic despite the gravity of their situation is the key difference between himself and leaders in similar situations whose followers suffered terrible fates. If Shackleton could maintain the morale of stranded men with no hope of rescue, then leaders in more congenial settings have little excuse for not keeping up the morale of the people who make up their organizations. Contemporary leaders would be wise to display similar attributes of altruism and egalitarianism if they wish to inspire the type of deeply held trust and allegiance that Shackleton enjoyed. It was not an aberration that every man volunteered to join Shackleton on the voyage of the James Caird. As author Eric Hoffer noted, “The leader has to be practical and a realist, yet must talk the language of the visionary and the idealist.”

**Statement of Leadership Practice: A Model for Twenty-first Century Leadership**

Leadership is complex. Over a century of theorizing and research has identified the multiple elements that influence every leader. The task of defining effective leadership becomes increasingly important as organizations and the global economy grow exponentially. Management expert Peter Senge (2010) noted that in the modern world, innovative, effective leaders are needed throughout organizations.

The proficient leader needs to be aware of the multiple elements of effective leadership, make connections between them, and simplify them into a usable model that will work in almost any situation. Using the concepts of effective implementation of theory that have been derived from the study of Shackleton, the following Statement of Leadership Practice is designed to provide a concise model for leaders at all levels of organizations:

**Provide a Goal and a Path to Get There**

- Articulate a clear goal
- Create a path to the goal
- Clear the path of any obstacles
- Think ahead about possible problems that may arise
- Make changes as necessary to keep the path clear

**Your Goal as Leader: Inspire People to Want to Follow the Path and Attain the Goal:**

- Build trust and loyalty
• Transform individuals and the organization

• Create a cohesive group from diverse elements

How to Inspire People:

• Make people your priority and demonstrate this through actions

• Focus intensely on supporting them, especially those who are struggling

• Be selfless, humble, altruistic, and empathetic

• Share work and share risk

• Set high expectations, show confidence, encourage excellence

• Teach, direct, and guide

• Believe in the potential of people

Keep Morale High

• Use an understanding of human psychology to guide your actions

• Constantly spread optimism to individuals and the organization

• Be careful not to disseminate information that may lower morale

Bibliography


Big Data and the Library Professional

By Jeffrey Stanton

Abstract: The news is full of headlines describing the “rise of big data” and the consequent need for data scientists and big data professionals. Yet, as stewards of vast troves of printed and electronic information for generations, haven’t librarians always dealt with big data? The attention we give to this question has the potential to influence the future of the library as well as the long-term viability of librarianship as a profession.

The Growth of Big Data

Ever since the start of the computer age in the 1950s, people have generated and stored digital data. Recently, the amount and complexity of the data we generate and store have exploded. Many people are familiar with the idea of Moore’s Law: that the amount of computer processing power per chip doubles every 18 months. A similar idea, promoted by Mark Kryder, the former chief technology officer of Seagate (a hard disk manufacturer), suggests that the amount of data storage one can fit on a given area of a magnetic medium also doubles every 18 months. What is little understood about these “laws” is that doubling in a fixed amount of time creates an accelerating trend that starts off slow but eventually reaches a tipping point of massive growth. Progress in storage capacity was steady all the way into the 1990s, but between 2005 and the present we quickly jumped from reasonably affordable disk drives that could comfortably hold all of your family photos to online storage sufficient to digitize a whole floor of library books that is available completely free to anyone with a computer and an Internet connection. For less than the price of a nice meal at a fancy restaurant one can buy a hard disk drive that has sufficient storage to hold the entire printed collection of the Library of Congress.

Because of the low cost of this storage and computing power – as well as the affordability of other technology such as digital cameras, bar code scanners, web analytics, and RFID tags – hospitals, schools, manufacturers, colleges, retailers, government agencies, and libraries have begun to collect and store truly enormous amounts of data. The goal in many cases is to make use of these data to provide valuable new services or to improve efficiency. The problem with reaching these goals is that as the amount of storage and processing has grown, the complexity of the data and the challenges of working with it have also increased. In the good old days a

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programmer would write a program, a user would use the program, a statistician would analyze the data that the user produced with the program, and a librarian would archive the report that the statistician created. Those days are gone.

The reason we now see lots of job advertisements for “data scientist” is that there is a pressing need for interdisciplinary professionals who understand software, the Internet, databases, data analytics, data visualization, and data-curation. These professionals have their specialties – some are good at working with numbers, others are database experts, still others have expertise in unstructured data (e.g., text) – but they also need generalist skills that let them bridge the wide range of tasks and methods needed to manage today’s big data problems.

**Big Data and the Librarian**

So where does contemporary librarianship fit in with data science? Librarians have always been great at information management and organization. This is certainly a core skill for a data scientist; it manifests most strongly in the data curation component of the big data problem. Many librarians are also outstanding communicators and have been trained in the art and science of transforming user information needs into referrals to critical sources of information. In one sense, this is the front end of the big data problem, where the data scientist needs to learn what decision makers hope to gain from mining the data they possess.

Now consider the question of librarians in the larger context of data science. At the front end, reference librarianship contains some of the skills data scientists need to understand the needs of information users. At the back end, archiving and curation specialists have some of the skills data scientists need to enable long-term reuse of valuable data. What’s missing is the middle. The middle is not about technology, per se, but rather a mastery of data, data structures, and data transformations.

A librarian does not need to become a computer scientist, but every librarian interested in data science should have some introductory experience with at least one programming language. A librarian need not be a database programmer, but a data scientist must understand the subtleties of structured query language. A librarian does not need to be a statistician, but each data scientist should have an essential understanding of inferential and descriptive statistics. A librarian does not need to be a data miner, but data scientists need a general understanding of how to search for patterns in structured and unstructured data. Finally, a librarian does not need to be a graphic designer, but every data scientist needs to be capable of creating an effective data display. In short, successful data scientists need a range of sophisticated skills that squarely occupy the central ground between understanding information user needs on one end and data curation on the other.

If this sounds like a lot of work, it certainly is, and there are certainly many current librarians and aspiring library students whose interests do not lie in the direction of data science. That’s fine, because librarianship is a big tent, but it may be tempting in the same breath to conclude that data science need never play any defining role in librarianship. Consider some of the key values that drive librarianship, however, and it becomes evident that some librarians must take a lead role in data science lest this emerging specialty become the servant only of proprietary interests. Librarians stand for open access to information, for privacy rights, for the importance of accurate information in a democratic society, and for the necessity of preserving the legacy of historical information for future generations. Public library users, students in school libraries, and faculty and students in university libraries all depend upon these bedrock values to support their missions of learning, exploration, and citizenship. We’ve known for at least a quarter century that fulfilling these missions requires much more than choosing, shelving, and
lending books. In the near future, the ability to fulfill the roles of citizenship will require finding, joining, examining, analyzing, and understanding diverse sources of data. For example, for a citizen to become an effective community advocate might require “mashing-up” some map data, some census data, some health data, and some environmental data to develop a meaningful understanding of a challenge that the community faces. Who but a librarian will stand ready to give the assistance needed, to make the databases available, and to provide access to the necessary tools when the community advocate arrives seeking answers?

We frequently hear the word “information” paired up with other words to describe our contemporary situation – the information age, the information industry, the information society. In this light, data science almost seems like a step backwards from the place where most librarians got their professional education: in graduate programs of library and information science. The excitement and burgeoning interest in data science, however, arises from a clear recognition that data are the raw ingredients of information (not to mention knowledge, understanding, and wisdom), and that we urgently need more professionals who possess a deep understanding of how to transform, analyze, and present data to facilitate discovery and decision making. Librarians are poised and positioned to become the core of future cadres of data scientists, but doing so will require filling in that middle ground in data education where few librarians have gone so far. Doing so will require an additional educational commitment to new skill areas, and quite possibly less attention to certain traditional topics. The tradeoff will be worthwhile, as data science holds enormous potential as a focus area in the future of librarianship.
Abstract: The digital divide refers to the gap that exists between individuals and groups who have access to modern information and communication technologies — particularly the Internet — and those who do not. The “have-nots” disproportionately belong to low-income households, are members of minority groups, are older, and reside in rural as opposed to urban areas. As we might expect, in an increasingly digital world, disparities in access to vital technologies contribute significantly to poverty and inequality. This essay analyzes the extent and the implications of the digital divide in the United States, and it recounts public and private efforts to address the problem from the 1990s to the present. Significantly, the current administration has placed a major emphasis on upgrading the nation’s infrastructure, a policy that includes making high-speed Internet access nearly universal. The essay then shifts its focus to the role that libraries can and must play in combating the digital divide. It concludes with some observations concerning the current dilemma of librarians who must meet rising expectations and expanding social responsibilities with diminishing resources.

Introduction:

Recent decades have witnessed a virtual revolution catalyzed by an almost breathtaking succession of new information and communication technologies (ICTs). The “digital age” has reformulated modern economies and created a demand for new types of skills and knowledge. Information is increasingly displacing production as the essential economic activity. As Menell (2007, p. 716) observed: “The digital revolution has displaced General Motors and other manufacturing enterprises from the top of the economic food chain.” As the nation transitioned to a digitally powered, information-based economy, a national spotlight began to focus on the underlying divisions between groups who have access to and familiarity with current ICTs and those who do not.

This essay will examine the digital divide and the role of libraries and librarians in addressing this problem. It will also consider the ways in which the digital divide and the information revolution in general are transforming the nature and functions of libraries in a modern society.

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The digital divide can be succinctly defined as "a gap between people who enjoy the benefits of technology and those whose lives could be significantly improved by it" (Digital Divide Network, p. 1). When used in this context, technology essentially refers to modern information and communication technologies, particularly computers and the Internet. This definition highlights a basic truth; namely, that the ability to access and effectively utilize the technological resources that are reshaping our world and are vital to gainful employment is distributed unequally in contemporary societies. Further, this inequality typically reflects traditional socioeconomic inequalities in income, education, and race/ethnicity. Generally speaking, the technology “have-nots” disproportionately belong to low-income households, are less educated, are members of minority groups or individuals with disabilities, are older, and reside in rural as opposed to urban areas.

Going further, as innovations have emerged at breathtaking paces and storage capacity has increased exponentially, both information and the tools to manipulate that information have inexorably shifted to an online format. Consequently, access to the Internet has evolved from a useful resource within a modern society to an essential one. As just one example, more than 80% of Fortune 500 companies now require job seekers to complete online applications (Genachowski, 2011). Thus, the failure to expand access to modern ICTs to historically underserved populations threatens to extend existing inequalities to future generations.

The Complexities of the Digital Divide

Although useful, the above definition of the digital divide seriously oversimplifies a complex issue in several ways. To begin with, it is bipolar; that is, it dichotomizes society into users and nonusers. In reality, computer use and access exist along a spectrum that extends from people who are computer savvy to people who assiduously avoid modern technologies (Blau, 2002; Lenhart et al., 2003; Warschauer, 2002). Any effective policies to address the digital divide must take into account this reality as well as the social and economic factors that underlie this reality.

Second, the specifics of the definition have evolved as the relevant technologies have improved. Essentially, the focus on the digital divide has shifted over time from computer ownership to Internet access in general to high-speed, or broadband access in particular (Compaine, 2000). Because modern ICTs are developing so rapidly, combating the digital divide is by definition an ongoing process that requires a constant influx of resources, training, and education.

Finally, the reference to “enjoy[ing] the benefits of technology” is rather vague, and it disguises a highly complex reality. On the surface, the underlying issue appears to be providing ICT access to people with limited resources. On a deeper level, however, increased access to technologies is of limited value if people lack the skills and knowledge to utilize these technologies productively. When viewed from this perspective, policies designed to eliminate or reduce the digital divide must be broad in scope and, of necessity, must include a major educational component. Complicating this reality — as discussed later in this essay — is the fact that computer and Internet use are social, rather than individual phenomena.

“There are still 100 million Americans who do not have a broadband connection to the Internet. This sobering statistic has profound implications for economic success, educational achievement, and civic life. Communities face difficult challenges in their efforts to provide digital opportunity for all their residents” (IMLS Press Release issued March 21, 2012).

Libraries and the Digital Divide
Multiple “Divides”?

Reflecting these complexities, Mossberger, Tolbert, and Stansbury (2003, p. 55) have proposed a model that identifies four “divides”:

- Access: Are computers accessed at home, work, school, or library?
- Skills: People must be taught how to use the technologies.
- Economic opportunity: Information literacy enhances human capital.
- Democratic: Technology promotes an informed citizenry and equal opportunity, which are vital to democracy.

Significantly, although these authors distinguish between a skills divide and an access divide, they posit that the former replicates the latter. Going further, their reference to skills involves both technical competency and information literacy, which in turn is dependent on basic literacy. Literacy is defined broadly here as “having mastery over the processes by means of which culturally significant information is coded” (de Castell and Luke, quoted in Warschauer, 2002, p. 6). Digital literacy refers specifically to “an individual’s ability to locate, evaluate, and use digital information, encompassing both technologies (e.g., computers) and services (e.g., email)” as well as “their ability to deal with and make sense of the amount of information they receive” (Goulding 2001; cited in Jaeger et al., 2012, p. 5). Put simply, having access to information is of limited value if people lack the knowledge and skills to locate and evaluate that information and then utilize it in a productive manner. Significantly, because the promotion of information literacy is a fundamental value of the library profession, librarians have played a critical role in addressing the digital divide from the beginning, a topic I explore later.

**Part II: The Digital Divide and Public Policy: A Historical Overview**

The digital divide emerged as a focus of public policy during the 1990s, when individuals and groups both within and outside the government expressed concern regarding the nation’s readiness to address the challenges of a globally based digital economy. For example, the February 1992 edition of the *Monthly Labor Review* posited that a “new economy” had emerged in which “flexible and information-based technologies” — primarily computer technologies — play a vital role. For the United States to maintain a preeminent position within the new economy, the nation needed to promote both a substantial upgrade of its productive technologies and a skilled workforce that could utilize these technologies (“Advent of the New Economy,” p. 44).

Going further, a November 1991 article in the same journal analyzed employment trends over the coming 15 years. The authors predicted that workers with higher levels of education and more developed skill sets would enjoy substantial advantages in obtaining better-paying jobs (Silvestri and Łukasiewicz, 1991). Significantly, educational levels historically have closely correlated with socioeconomic status. Consequently, advocates for historically marginalized populations concluded from such studies that existing inequalities in income and education could translate

"Without access, full participation in nearly every aspect of American society — from economic success and educational achievement, to positive health outcomes and civic engagement — is compromised" (IMLS, Framework for Action, 2012,
into a skills “gap” that would entrench such groups in a permanent underclass status. Addressing this threat became a significant focus of the Clinton administration.

Probably no government agency played a more critical role in developing policies to deal with the digital divide than the National Telecommunications and Information Administration (NTIA) within the U.S. Department of Commerce (DOC). In 1994 the NTIA created the Technology Information Infrastructure Assistance Program (TIIAP) — subsequently renamed the Technologies Opportunity Program (TOP) — which provided matching grants to institutions such as state and local governments, libraries and schools, and nonprofit organizations to develop their digital technologies (US DOC, NTIA, *Connecting the Nation*). The following year the agency released the first of a series of reports titled *Falling through the Net* that provided quantitative evidence of the scope of the digital divide.

### The 1990s: Falling through the Net

The initial study, issued in July 1995, was titled *Falling through the Net: A Survey of the “Have-Not” in Rural and Urban America*. Reflecting the realities of the digital age, *Falling through the Net* asserted that the longstanding policy of ensuring affordable telephone service for all Americans had to be expanded to include access to computers and the Internet. The report then segued into an analysis of the ICT “haves” and “have-nots.” (All of the statistics and tables pertaining to this report are from US DOC, NTIA, 1995, including Table 2 and Table 5.) The NTIA found that computer ownership in households correlated strongly with such factors as income, race/ethnicity, and education. Not surprisingly, less-educated people and people in low-income households were far less likely to own computers than were middle- and upper-income people. Further, rural households at all income levels exhibited lower ownership rates than their urban counterparts. Combining these patterns, the report concluded that the lack of ownership was most acute among low-income households in rural areas. Fewer than 5% of households within this demographic owned computers (see Table 1).

A similar pattern emerged regarding race: Ownership rates were significantly higher for Asian and White households than for Latino and African-American households, regardless of location. Rates ranged from 40% for Asian households in urban areas to only 6% for Black households in rural areas.

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Rural</th>
<th>Urban</th>
<th>Central City</th>
</tr>
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<tbody>
<tr>
<td>Less than $10,000</td>
<td>4.5</td>
<td>8.1</td>
<td>7.6</td>
</tr>
<tr>
<td>$10,000-$14,999</td>
<td>7</td>
<td>9.1</td>
<td>9.3</td>
</tr>
<tr>
<td>$15,000-$19,999</td>
<td>11</td>
<td>12.6</td>
<td>13</td>
</tr>
<tr>
<td>$20,000-$24,999</td>
<td>15.7</td>
<td>15.9</td>
<td>16.3</td>
</tr>
<tr>
<td>$25,000-$34,999</td>
<td>18.1</td>
<td>22</td>
<td>21.1</td>
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<tr>
<td>$35,000-$49,999</td>
<td>32.7</td>
<td>34.9</td>
<td>34.7</td>
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<tr>
<td>$50,000-$74,999</td>
<td>46</td>
<td>48.4</td>
<td>47.4</td>
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<tr>
<td>$75,000 or more</td>
<td>59.6</td>
<td>64.4</td>
<td>63.1</td>
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One especially troubling finding of *Falling through the Net* was that ownership of and access to computers and the Internet were most problematic for the very groups who were in greatest need of these technologies. Individuals from traditionally disadvantaged groups relied heavily on the Internet for educational and work-related activities including “searching classified ads for employment, taking education classes, and accessing government reports” (US DOC, NTIA, 1995, p. 3). Viewed from this perspective, then, the digital divide threatened to rigidify the existing class and racial structures. Bridging this divide by increasing access to information technology thus became a central policy objective that involved both public and private entities.  

*Falling through the Net* prompted a response from the administration of President Bill Clinton. In a speech delivered at Knoxville, Tennessee, on October 10, 1996, Clinton proposed a program that would wire all of the nation’s school and libraries—particularly those in low-income neighborhoods—to the Internet. This proposal was incorporated into the Telecommunications Act of 1996. Section 254 of the act focused on provisions to provide “universal service,” a policy that mandated that telecommunication services should be made available to all Americans at affordable rates. To implement this objective, the law required all carriers that provided service either between states or internationally to contribute funds to a newly

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1. Interestingly, despite these findings, the report never actually used the term *digital divide*. The term did appear in the title to the 1998 report.
created universal service fund (USF). The United Service Administrative Company (USAC), under the auspices of the Federal Communications Commission (FCC), would then distribute these funds to provide modern telecommunications services at a reduced "e-rate" (educational rate) to schools and libraries as well as to low-income areas (Telecommunications Act of 1996; USAC website; see also Mills and Corcoran, 1996).

Following the government’s lead, the private sector soon joined in these efforts. The most important private initiative was the Gates Library Foundation, established in June 1997 by Bill and Melinda Gates. The foundation’s goal was to provide public libraries across the nation — but especially in low-income areas — with computers and Internet access, as well as the training and support to utilize these technologies effectively. To accomplish this goal, the foundation planned to spend $200 million over a five-year period (Blau, 2002; Lohr, 1997; Lohr, 2004).

Another major initiative to address the digital divide was the creation and proliferation of community technology centers (CTCs). CTCs are locally based nonprofit organizations that provide underserved populations with access to and training for modern ICTs, frequently in library settings. The movement grew out of a program called Playing 2Win that was instituted in Harlem in the 1980s by a former teacher named Antonia Stone. By the early years of the 21st century, more than 1000 centers had been created throughout the nation via a network known as CTCNet. Numerous federal agencies, including the National Science Foundation, the Department of Education, and the NTIA, provided funding for this movement, as did private entities such as the Benton Foundation and AOL-Time Warner. CTCs were also included in the e-rate provisions of the Telecommunications Act. President Clinton’s final budget allocated more than $100 million for community centers (Davies and Wiley-Schwartz, 2003; Servon and Nelson, 2001; U.S. Department of Education).

In an effort to align public and private initiatives, the NTIA scheduled a major conference for December 9, 1999. The attendees included executives from prominent telecommunications companies such as AT&T and America Online, professional educators, and representatives of civil rights organizations such as the National Urban League (NUL) and the National Conference of American Indians. Government officials and private organizations agreed to pursue more aggressive efforts to expand technology access in low-income neighborhoods (US DOC, “Digital Divide Summit”; see also Cha, 1999; Clausing, 1999). The summit helped generate new grassroots programs. Two of the attending organizations—the NUL and the Benton Foundation—formed the Digital Divide Network (DDN). This organization functioned as a storehouse for information on the digital divide, making this information available to concerned individuals and groups. Then, in April 2001, the ALA joined with several nonprofit groups, including the DDN and the AOL-Time Warner Foundation, to form ConnectNet/Conectado. ConnectNet compiled a comprehensive directory of locations at which students could attain free Internet access. It also established websites, published brochures, and issued public service announcements encouraging teenagers from minority groups to develop their computer and Internet skills (ALA, 2001; Digital Divide Network; Weiner, 2001).

In October 2000 the NTIA released its final *Falling through the Net* report. The report claimed that the nation had achieved impressive progress toward “digital inclusion.” (I examine this concept in greater detail later in this essay.) It revealed that Internet access had increased substantially among Americans of all income and educational levels as well as among all racial and ethnic groups. For example, the percentages of Black and Hispanic households with Internet access had roughly doubled over the previous two years.

Despite this progress, however, the data also indicated that unequal access remained a problem and had even worsened in some areas. Returning to the previous example, household access among Blacks and Hispanics was
about 50% of the rate among White households and just over 40% of the rate for Asian Americans and Pacific Islanders. Going further, the statistical gap between the national averages and those for Blacks and Hispanics had actually increased since 1998. In addition, people with disabilities lagged well behind people without disabilities (US DOC NTIA, 2000, pp. xv–xviii, 13). To its credit, the Clinton administration had identified the digital divide as a serious national problem and had encouraged a significant public-private collaboration to address it. Much work, however, remained to be done.

2001–2008: Retrenchment and Protest

As the nation entered the 21st century, the governmental focus on the digital divide — at least on the federal level — began to diminish. There were several reasons for this development. One factor was the transition to the more conservative administration of President George W. Bush. As champions of deregulation and “free-market” economics, the president and his appointees were more skeptical than their predecessors regarding government support for social welfare programs. They extended this philosophy to the digital divide. The administration proposed reducing or eliminating federal programs that provided computers to low-income people. They preferred to encourage Internet expansion by reducing taxes, developing more general educational programs, and relying on competition among Internet providers (Cha, 2002; Cooper, 2004).

In addition, efforts to close the technology gap had become victims of their success. In fact, a debate evolved as to whether the digital divide remained a significant problem — or even existed. For example, in his first press conference, newly appointed FCC Chairman Michael Powell announced: “I think there is a ‘Mercedes divide.’ I’d like to have one; I can't afford one” (quoted in Labaton, 2001). (In contrast, his father, Gen. Colin Powell [2000], had referred to the gap between technology haves and have-nots as “digital apartheid.”) Powell also questioned the need for many of the regulations that previous administrations had imposed on the telecommunications industry.

Skeptics outside the government expressed similar views. In March 2002, for example, columnist Robert Samuelson published an article in the Washington Post titled “Debunking the Digital Divide” that labeled the issue a “fashionable political slogan” and posited that it could be “largely fiction” (Samuelson, 2002, p. A33). In June 2002 a column in the same newspaper suggested “the divide that once was clear seems to be disappearing” (Cha, 2002). Four years later, a column in The New York Times referred to “a remarkable closing of the ‘digital divide’” evidenced by increasing rates of Internet usage among African Americans (Marriott, 2006).

Just as the movement to close the divide during the 1990s was catalyzed by NTIA studies, the movement to reconsider these efforts also emerged—at least in part—in response to agency reports. In February 2002 the NTIA issued A Nation Online. Compared to the Falling through the Net studies, A Nation Online was more celebratory in tone, proclaiming “we are truly a nation online.” This report mirrored the findings of the final Falling through the Net study that the gaps between people who had access and those who did not were narrowing regardless of whether these gaps were measured in terms of education, race, or geography (rural versus urban). The report indicated, for example, that the overall number of Internet users had increased by 26 million from September 2000 to September 2001. Not surprisingly, usage was particularly widespread among young people. In fact, 90 percent of children between 5 and 17 were using computers. Despite this progress, however, the data also revealed that the majority of Blacks and Hispanics, low-income households, and people with only a high school diploma (or less) did not use the Internet. Moreover, low-income people were more likely than other groups to cite expense as the major reason their homes were not connected to the Internet (USDOC, NTIA, 2002).
The new administration’s generally optimistic perspective was both reflected in and reinforced by an emerging scholarship that argued that the digital divide would largely disappear without large-scale government intervention. A prominent spokesperson for this position was Benjamin Compaine of MIT (2000). While acknowledging that inequalities in computer access and use continued to exist, Compaine expressed confidence that these gaps would dramatically diminish in the foreseeable future. To buttress his argument, he compared the Internet with previous technologies such as radio and television, which had “achieved near universal adoption without massive government or even private programs” (p. 18). He then cited data demonstrating that the Internet and email were being adopted much more rapidly than these earlier technologies. He identified several factors that spurred this dramatically increasing usage, including:

- Lower costs for both hardware and Internet access
- An expanding number of points of presence (POPs)
- Greater ease of use

These trends, he maintained, would continue into the future. “The digital divide,” he concluded, “is less a crisis than a temporary and normal process” that largely replicated the adoption histories of previous generations of technologies (p. 19).

As previously stated, the Bush administration’s policies deemphasized government intervention in favor of market-based strategies, a move labeled by one critic as “a radical shift” (Cooper, 2004, p. 2). During its tenure the administration eliminated funding for TOP, claiming the program had achieved its objectives; reduced the NTIA budget; and attempted to dismantle the CTC program (Cha, 2002; McLoughlin, 2005, pp. 2–5; Mossberger, Tolbert, and Stansbury, 2003). It chose instead to rely on competition among Internet providers to lower costs and thus move the nation toward universal access. Significantly, by 2004, Bush — and most concerned parties — had responded to technological advances by narrowing their focus to broadband use. In a speech delivered on March 26 of that year, the president called for “universal affordable access for broadband technology by the year 2007” (quoted in Glaser, 2007).

Unfortunately, this ambitious goal went largely unrealized. Research conducted by the Pew Internet and American Life project indicated that by 2008 only 65% of the population had Internet connections at home. More specifically, roughly 55% had broadband access, and the remaining 10% continued to use dial-up (Horrigan, 2008). According to the International Telecommunications Union (ITU), these data placed the United States, once a global Internet leader, 15th in broadband penetration among all nations. Moreover, the U.S. government defined broadband as any connection with a speed of 200 kilobits per second or greater. This standard was far lower than speeds achieved in other developed countries such as Japan (Bleha, 2005; Copps, 2006).

Critics attributed the nation’s relative decline in broadband expansion to the Bush administration’s reliance on competition among Internet providers, which, they charged, never materialized. Instead, broadband access was largely controlled by what Business Week labeled “a cozy duopoly of broadband providers”; specifically, the telephone companies and the cable companies (quoted in Cooper, 2004, p.1). A 2007 study revealed that 90% of U.S. broadband users were limited to these two options, and 20% were limited to one (cited in Werbach, 2009, p. 69). Not surprisingly, this lack of competition enabled providers to charge relatively high prices. According to one FCC commissioner, when compared to European broadband users, Americans were paying roughly twice as much for broadband connections that operated at only a fraction of the speed (Copps, 2006).
A fundamental reason for the emergence of this duopoly was the decision of the Bush administration to officially define broadband technology as an “information service” rather than a “telecommunications service.” This designation exempted broadband providers from the USF regulations created under the Telecommunications Act (see the previous discussion of this law). The USF program continued to apply to dial-up services. As noted above, however, by the final years of the administration, only a small minority of wired households continued to utilize dial-up, and their numbers were steadily falling. Thus, USF was becoming increasingly irrelevant to the nation’s most pressing information and communication needs (Cooper, 2004; Selwyn and Golding, 2010; Werbach, 2009). Related to this analysis was the administration’s shift in focus from universal service to universal access. The latter deemphasized the need for installing computers and the Internet in the home as long as users could access these technologies in institutions such as schools and libraries (Cooper, 2004; Stevenson, 2009).

The nation’s broadband deficits had major implications for the digital divide. Overall, broadband access reflected the previous trends for general Internet access. Studies revealed that the most reliable predictors of broadband access were income, education, and age. Of course, factors such as race and ethnicity were closely associated with education and income (Cooper, 2004; Mossberger, Tolbert, and Stansbury, 2003). Thus, the same populations that were victimized by the original “Internet divide” were now on the wrong end of the “broadband divide.” Significantly, the disadvantages confronting these groups far exceeded the simple inconvenience of slow performance. As Cooper (2004, pp. 3–4) observed: “Offerings that are explicitly tailored for broadband may not work or certainly do not work very well over narrowband connections. Being locked into the narrowband Internet means falling farther behind.” He concluded: “Neglecting universal service and affordability threatens to turn the digital divide into a permanent, digital chasm.” In the wake of these developments, advocates called for a national broadband policy that would enhance U.S. global competitiveness while simultaneously bridging the digital divide (Bleha, 2005; Copps, 2006).


The ascendancy of the Barack Obama administration in 2009 signaled a shift in federal policies to address the digital divide. Obama’s overwhelming victory was due in large part to the serious economic downturn of 2008. The new president and many of his appointees were convinced that upgrading the nation’s communication and transportation infrastructure was essential both to increasing employment and to maintaining global competitiveness. Significantly, they identified closing the digital divide as a key strategy in accomplishing these objectives. As Lawrence Strickling, the new NTIA administrator, explained: “Technology skills and Internet access are increasingly necessary to finding a job, but many people don’t have the resources to go online” (quoted in “Why He Matters”). Strickling’s views mirrored those of many other administration officials, and they indicated a sharp contrast with the philosophy of the Bush administration.

As expected, the administration’s initiatives focused specifically on broadband technologies. Where does the nation stand in this regard? According to Digital Nation, the NTIA’s 2011 report, in October 2010 some 68% of U.S. households had broadband Internet access at home (US DOC, NTIA, 2011, p. 7). Although these data were evidence of an impressive expansion of wireless access, they also indicated that nearly one in three U.S. households still lacked a high-speed connection. (In contrast, according to the president, the connectivity rate for South Korea exceeded 90%; see White House Office of the Press Secretary, February 10, 2011). Moreover, when these data are disaggregated, they clearly illustrate that the digital divide continues to plague the nation:

2. The same report indicated that the number of households that still used dial-up had fallen below 3%.
Households with incomes exceeding $150,000 were almost 3 times more likely to have broadband connections than those earning less than $15,000.

Adults with a bachelor's degree or higher were 50% more likely to use a broadband connection at home than adults with a high school diploma or GED.

Home usage rates for Asians and Whites were approaching 70%, whereas the corresponding rates for African Americans, Latinos, and American Indians remained below 50%. Moreover, African Americans and Latinos were more likely than Whites and Asians to cite cost as the primary reason for their lack of connectivity.

The rural connectivity rate (60%) continued to lag behind the urban rate (70%), although this gap was narrowing (US DOC, NTIA, 2011, especially pp. 1–17).

The administration’s position regarding the vital role of high-bandwidth technologies in catalyzing economic growth was buttressed by empirical studies. For example, Leonard Waverman, a Fellow at the London Business School and co-author of the influential essay “Telecommunications Infrastructure and Economic Development,” reported: “Research suggests that with the right skills and infrastructure in place, broadband strategies could increase national productivity and growth by up to 15%” (quoted in US DOC, NTIA, 2011, p. 6). Studies such as these confirmed the administration’s conviction that efforts to bridge the digital divide would simultaneously serve as engines of economic growth.

The administration’s commitment to expanding opportunities by reducing the digital divide was reflected in the 2009 American Recovery and Reinvestment Act (ARRA), commonly referred to as the “stimulus package.” The ARRA included $7.2 billion to upgrade the nation’s digital infrastructure. Of this total, $4.5 was designated to create the Broadband Technologies Opportunities Program (BTOP) under the auspices of the NTIA. The objective of BTOP was “investing in construction or upgrade of more than 100,000 miles of broad broadband infrastructure, enhancing and expanding public computer centers, and implementing programs to encourage broadband adoption among populations where it is lagging.” The program also provides a central website where recipients can upload and share relevant information with other concerned parties. Significantly, the reference to “public computer centers” includes libraries (quote from US DOC, “Secretary Locke”; see also Information Institute, 2009; White House, Office of the Vice President, 2009).

The remaining $2.5 billion was awarded to the Rural Utilities Service (RUS) within the Department of Agriculture to expand broadband access to rural communities. RUS created the Broadband Initiative Program (BIP) to administer these funds (US DOC, NTIA, Broadband USA home page). In sum, then, the funds allocated by the stimulus package targeted the low-income and rural areas that had been highlighted in the Falling through the Net reports of the 1990s. Commerce Secretary Gary Locke confirmed the convergence of this strategy with the broader goal of recovery, asserting that BTOP “will reach the last frontiers of America’s information landscape, and the investments it makes in inner-city neighborhoods and rural communities will spur innovation and pave the way for private capital to follow” (US DOC, “Secretary Locke”). From this perspective, then, federal efforts to universalize broadband connectivity were intended as catalysts, and not substitutes, for private-sector economic initiatives.

Since the passage of the stimulus act, BTOP and BIP can claim some degree of success. For example, by May 2011 the NTIA had invested in more than 230 projects designed to improve Internet access and skills (US DOC, “Secretary Locke”). Meanwhile, in his January 2011 State of the Union Address, President Obama pledged to

3. Recall that in the 1990s the NTIA had created the TOP, but the program was eliminated by the Bush administration.
make high-speed (4G) Internet access available to 98% of Americans within five years. In February the White House publicized the details for its Wireless Innovation and Infrastructure Initiative. The plan includes:

- A one-time payment of $5 billion to expand coverage in rural areas
- A $3 billion wireless innovation (WIN) fund to support research in technology-related areas such as health, energy, and education
- An expenditure of $10.7 billion to create a nationwide network to enhance public safety by enabling first responders throughout the nation to communicate wirelessly (White House Press Release, February 10, 2011).

In 2011 the Obama administration initiated a number of programs designed to move the nation toward universal broadband access.

- In May the Department of Commerce announced the launch of www.Digitalliteracy.gov, “a new website that provides libraries, community colleges, schools, and workforce training centers a variety of resources and tools for teaching computer and Internet skills.” Among the services offered by the website is Internet job searching (Quote from US DOC, “Secretary Locke”; see also White House, Office of the Press Secretary, January 25, 2011; February 10, 2011.)
- In October, in a fundamental reversal of Bush administration policies, the FCC announced that it was incorporating broadband service under the universal service provisions of the Telecommunications Act. It also created the Connect America Fund (CAF) to finance efforts to extend broadband coverage to areas currently lacking such service, particularly rural areas (Connect America Fund, 2011; Wyatt, 2011).
- Shortly thereafter the FCC announced the creation of Connect to Compete, a public-private partnership that would provide computers and broadband service to underserved communities at reduced prices. The program would also offer digital training provided by companies such as Microsoft and Best Buy (C2C website).

**Part III: Libraries and the Digital Divide**

Having provided a basic overview of the nature and history of the digital divide, this essay will conclude by examining the roles of libraries and librarians in addressing this problem. Perhaps the best point of departure is to consider the role of libraries in providing the “have-nots” with access to information technologies.

Libraries play a vital role in enabling people to access computers and the Internet. They are especially valuable for lower-income and less-educated people, who are less likely to have computers in their homes or to use them in their jobs (assuming they are employed). In 2010, for example, 11% of Americans accessed the Internet at a public library. These numbers indicate that libraries are the third most popular out-of-home site for Internet access, following work and school (U.S. DOC, NTIA, 2011, p. 18). However, both schools and workplaces have clear limitations as public computer sites. Although 99% of U.S. schools are wired for the Internet and many schools
allow students to use their equipment after standard school hours, schools generally are closed on evenings, weekends, holidays, and, to varying degrees, during the summer months (Callison, 2006). Moreover, computer access is largely limited to students and faculty. For workplaces, computer access varies with position and occupation. Moreover, many employers prohibit or restrict personal use of company equipment. Perhaps most importantly, for unemployed people and low-income workers whose jobs don’t involve computers, the job site simply can’t serve as a source of broadband access.

In contrast, public libraries are taxpayer-funded entities intended to serve the entire population. It should not be surprising, then, that 65% of libraries reported that they are the only institutions in their communities that provide free access to computers and the Internet (Bertot et al., 2011, p. 3). As an article in the New York Times observed, “For the library, supplying patrons with access to the Internet and the Web has become central to its mission.” Significantly, the Times described this service not as a new departure but, rather, as “an upgrading of its [library’s] tradition of providing information free to the public” (Lohr, 2004).

Going further, as discussed at the beginning of this essay, libraries must do more than simply enable individuals to connect to the Internet. Rather, they often must teach their patrons how to use computers to accomplish tasks ranging from researching homework assignments to applying for public assistance. Significantly, in a study conducted at Carnegie Mellon University, participants who were given a computer with an Internet connection often gave up as soon as they experienced any type of technical problem (Blau, 2002, p. 51). To people who lack experience, computers and the Internet can represent a “brave new world” that is daunting and intimidating. Recall that the Gates Foundation and Connect to Compete emphasized training as well as access.

One important discovery relevant to these findings is that comfort with computer use was a social rather than an individual phenomenon. That is, individuals — particularly young people — were more likely to become computer literate when the people with whom they socialized also used computers. Because people with higher incomes and educational levels are more likely to be familiar with digital technology, this social aspect of computer usage helps to perpetuate the digital divide. This finding has significant implications for librarians, as discussed below.

Many experts have incorporated these concepts into a broader definition of the digital divide. Consider, for example, the observations of Warschauer (2002):

Meaningful access to ICT encompasses far more than merely providing computers and Internet connections. Rather, access to ICT is embedded in a complex array of factors encompassing physical, digital, human, and social resources and relationships. Content and language, literacy and education, and community and institutional structures must all be taken into account if meaningful access to new technologies is to be provided.

Significantly, Warschauer redefines the ultimate objective of increasing access to ICT as “not to overcome a digital divide, but rather to further a process of social inclusion.” Indeed, the concept of digital inclusion has become fundamental to efforts to bridge the digital divide. The IMLS defines digital inclusion as “access to the Internet” as

4. Recall from the discussion of the Clinton administration that the term “digital inclusion” appeared in the title of the 2000 Falling through the Net report.
well as “the availability of hardware and software; relevant content and services; and training for the digital literacy skills required for effective use of information and communication technologies.” This definition includes three essential components:

- All members understand the benefits of advanced information and communication technologies.
- All members have equitable and affordable access to high-speed Internet-connected devices and online content.
- All members can take advantage of the educational, economic, and social opportunities available through these technologies (IMLS, “Framework,” 2012, p. 1).

Advocates of the social inclusion approach posit that policies to close the digital divide must encompass not only access to technology but the entire social world in which individuals utilize that technology.

These findings affirm the reality that contemporary librarians must act as both information specialists and educators. Their willingness to accept the educator role is evidenced by the fact that almost 90% of libraries now provide some type of technology training (ALA/University of Maryland, 2011, p. 7). Moreover, because Internet use is a social activity, librarians must reach out not only to individual patrons but also to the surrounding community. Especially in low-income neighborhoods, libraries are evolving into “socialization and community gathering places” that perform myriad roles. According to the Metropolitan New York Library Council, or METRO, the functions of today’s libraries include “helping children learn to read and navigate the Internet” and “providing English as a Second Language classes and Internet training to immigrant communities.” Libraries also serve as “safe havens for teenagers” in neighborhoods plagued by crimes, drugs, gangs, and other problems that constitute major obstacles to learning (METRO, 2008, p. 26).

In addition to assisting students and low-income families, librarians are increasingly combating the digital divide by providing employment-related services. In fact, libraries now rate aiding job seekers as their most important Internet service. More than 90% of the nation’s libraries provide their patrons with access to jobs-related databases, and more than 70% assist patrons with activities such as drafting resumes, preparing for civil service exams, and completing online employment applications (ALA/University of Maryland, 2011, p. 9).

A recent study of the Philadelphia library system confirmed the critical economic role performed by the nation’s libraries. Respondents claimed that the resources made available by the Free Library of Philadelphia enabled them to start, sustain, or expand roughly 8,600 businesses. An additional 1,000 respondents reported that they had found employment utilizing FLP resources. Taken together, these jobs and businesses injected more than $30 million into the local economy (ALA, State of America’s Libraries, 2011, p. 8).

A related service is helping patrons access e-government websites to research available resources, obtain information relating to government services, and fill out government forms. In a national 2011 study, more than 80% of the reporting public libraries confirmed that they performed this function (Bertot et al., 2011, p. 7). Overall, 26 million people had used computers in public libraries to access government websites or to obtain information (ALA/U of Maryland, 2011, p. 10). Although helping people access and utilize e-government resources benefits all
segments of society, these services are especially valuable to populations such as seniors, immigrants, and unemployed workers who are particularly dependent on public support and who frequently lack the resources and skills to navigate government websites on their own. Significantly, providing these services also benefits libraries by enhancing their prestige, reinforcing their value to the community, and potentially attracting new clients. In fact, studies such as the one evaluating the FLP can provide quantitative evidence of libraries’ economic and social contributions, which advocates can utilize in budget battles at the state and local levels. At the same time, however, performing these roles sometimes requires knowledge and expertise that many librarians did not acquire in their training programs (Jaeger and Bertot, 2009).

In addition to its myriad of locally based programs, the library profession has become engaged at the national level. In response to the efforts of the Obama administration, the IMLS has partnered with the University of Washington Information School and the International City/County Management Association (IMCA) to develop strategies to assist both public- and private-sector institutions in creating “digitally inclusive communities” throughout the nation. After soliciting feedback from hundreds of concerned community members and organizations over an 18-month period through a series of forums and a national survey, this working group published two reports in March 2012: Building Digital Communities: A Framework for Action and Building Digital Communities: Getting Started (IMCA, 2011; IMLS Press Release 2012). These reports unveiled a Framework comprised of 13 basic principles — each associated with specific goals — to guide collaborative efforts by “individuals, local and tribal governing bodies, business, the nonprofit community, special interest groups, and other stakeholders” to expand digital access and information literacy (IMLS, Framework, 2012; quote from p. 3).

"Libraries seem to be losing out in the funding battles due, in part, to the mistaken belief that they are somehow anachronistic in an age when so many Americans have instant computer access to information through the Internet " (author Scott Turow, quoted in ALA, State of America’s Libraries, 2011, p. 12).

The Librarian’s Dilemma: Doing More with Less

Clearly, then, the library profession plays a vital role in promoting information literacy and alleviating the digital divide. The fundamental question thus becomes, how prepared are libraries—and librarians—to perform these expanded roles? First, the good news. As is true of schools, 99% of public libraries now provide Internet access, with almost 85% offering wireless access. Moreover, roughly 85% provide WiFi, and 67% make e-books available to their patrons (ALA, “The State of America’s Libraries 2011, p. 6; ALA/U of Maryland, 2011, p. 7). Some of the credit for these numbers goes to the Gates Foundation, which has either paid for or installed more than 47,000 computers in the nation’s libraries (Lohr, 2004). In addition, BTOP and BIP continue to assist both public and school libraries. Significantly, the ALA responded to the passage of the ARRA by issuing publications and conducting webinars to instruct librarians on how to apply for BTOP and BIP funds. Librarians were quick to capitalize on these opportunities. In 2010, for example, 45% of the nation’s libraries — including 57% of urban libraries — pursued ARRA funding (ALA Washington Office, Six-Month Report January 2010; Bertot et al., 2011, pp. 52–53).

Going further, libraries have established many joint programs with community and public service groups to assist individuals in low-income neighborhoods. An example of these efforts is Computers for Youth (CFY), a nonprofit organization devoted to improving academic performance by providing low-income students in several major metropolitan areas with home computers and other types of direct intervention (CFY website; see also Carvin, 2006).
Despite this support, however, libraries face an overwhelming task with limited—and often inadequate—resources. Unfortunately, the economic downturn that has highlighted the essential roles of libraries in enhancing national productivity and reducing the digital divide has simultaneously diminished their capacity to perform these roles. Under mounting pressures to close deficits by reducing spending, governments have selected libraries as a favorite target for budget cuts.

How has the current economic and political environment affected the nation’s libraries? Overall, almost 60% of all public libraries reported that their budgets for FY 2011 either declined or remained stagnant from the previous year. By comparison, two years earlier, only 40% fell into that category. On the state level, 33 states reported that library funding either diminished or remained the same. Moreover, in half of the states that reduced their library budgets, the cuts amounted to 10% or more. To compound this problem, city and local governments also identified library budgets as highly visible targets for spending cuts. A study cosponsored by the ALA and the University of Maryland revealed: “In November 2010, U.S. mayors reported that cuts in hours, staff, or services at local libraries were second only to those in maintenance and services at parks and gardens.” Among the institutions that received the sharpest cuts were school libraries in low-income neighborhoods. Diminished funding forced libraries to cut back both hours and services. The reduced hours were particularly acute in urban libraries (quote from ALA/U of Maryland, 2011, p 8; data from this source and ALA, State of America’s Libraries 2011).

Mirroring public libraries, school libraries also reported cutbacks in both staff and operating hours. In 2010, for example, overall expenditures on information resources declined almost 10% from the previous year. The most pronounced reductions occurred in low-income neighborhoods, providing further evidence of the intransigence of the digital divide (ALA, State of America’s Libraries 2011, p. 5).

Overall, then, the combined impacts of economic recession and popular pressures for reduced government spending have left the nation’s libraries with inadequate resources to successfully address the challenges generated by the digital divide, as the following data indicate.

- More than 75% of public libraries do not have enough computers to meet their patrons’ needs.

- Nearly 45% of the nation’s libraries claim that their Internet connection speeds are inadequate. Going further, in roughly 80% of libraries with wireless Internet, the wireless technologies must share the connection with the wired desktop computers.

- Nearly 95% of public libraries impose time restrictions on patrons’ computer use. In the majority of cases, patrons are limited to an hour or less.

- Roughly 48% of rural libraries have no trained IT personnel. Rather, IT support is the responsibility of the library director.

- A sizeable majority of the nation’s public libraries have indicated that they do not plan to increase either their bandwidth or their number of workstations. Significantly, in both cases librarians cited cost as a major factor. In fact, almost 30% of respondents indicated they wished to increase their bandwidth but cannot afford to do so.

A 2009 report by the Information Institute summarized the current scenario: “Public libraries continue to report that they are unable to meet patron demands for services due to inadequate technology infrastructure, costs associated
with operating and maintaining that infrastructure, and bandwidth quality/availability issues” (quote from Information Institute, 2009, p. 7; data from this source, ALA/U of Maryland, 2011, p. 7; and Bertot et al., 2011, pp. 1–52).

**A Fundamental Critique: Is Technology the Answer?**

Further complicating the digital divide controversy are critics who charge that, by focusing almost exclusively on technology, current policies define the issue much too narrowly. Some of these individuals deal specifically with education. They claim that classroom technology has evolved into a panacea whose actual value is based more in ideological conviction than in empirical research. Bolt and Crawford, for example, decry standard digital divide policies for “tossing technology at a problem and asking the human factor to make adjustments” (2000, p. 30). They question whether the funds appropriated for upgrading school technologies would be better spent on “human” factors such as hiring more teachers. Kleinman (2000) expands this perspective by arguing that computers are a disruptive technology that forces educators to fundamentally reformulate their teaching methods. Moreover, students can use classroom computers for activities that are unrelated to following their teachers’ lessons. Going further, both he and McAdoo (2000) focus on the actual uses of classroom technology. They express concern that the existing approach will recreate the factory model of the early Industrial Revolution where low-income people were trained for rote work while the wealthier classes were oriented toward creativity.

These arguments were buttressed by an investigative report that appeared in *The New York Times* in September 2011 (Richtel, 2011). The report’s central conclusion was that schools are directing ever-increasing expenditures toward technology, despite a paucity of empirical evidence connecting increased use of technology to either higher test scores or improvements in students’ overall learning experiences. Going further, this increased funding is occurring at a time when schools are reducing their overall budgets and laying off teachers. The article concedes that the relationship between education and technology is highly complex and cannot be evaluated by a single set of data. Nevertheless, in an era of diminishing resources, the policy of assigning major pedagogical value to technology in the absence of confirming evidence merits closer scrutiny.

Some critics go further by arguing that defining the digital divide and its solutions exclusively in terms of ICT actually benefits powerful interests, particularly computer and software corporations. One educational psychologist succinctly summarized this perspective: “Political considerations and economic pressure are being put before children’s welfare” (quoted in Bolt and Crawford, p. 45). Others pursue this line of reasoning even further by analyzing the existing definitions of the digital divide in terms of emerging political and economic power relationships. For example, Stevenson (2009) posits: “The concept as originally conceived by the U.S. government and subsequently operationalized through Bill Gates’s corporate and private philanthropies” essentially “advanced the interests of a new power bloc in that country consisting of the state and a globalizing information capital” (p. 2). She further charges that the prevailing definitions “managed to refocus the debate away from other more pressing and contentious issues…including the appropriate balance between government and market, historic amendments to copyright and patent legislation, the future of the country’s information and communications network, and the commodification of labor through its internationalization and automation vis-a-vis the new technologies” (p. 3). She concludes that by promoting access to technology at the expense of examining broader, underlying issues, government programs to bridge the digital divide have been of limited benefit to the populations they serve.
These criticisms raise insightful questions concerning the efficacy of the existing efforts to bridge the digital divide that merit further analysis. Their value notwithstanding, however, the realities of the digital age demand that libraries assist underserved populations in obtaining the technology-related skills that are essential to social mobility in the modern world.

Toward the Future

As we progress through the second decade of the 21st century, the explosive growth of information technology presents myriad challenges for the nation in general and for librarians in particular. Consider, for example, METRO’s 2009–2014 Strategic Plan: “Public and community libraries have an important role to play in serving the less privileged side of the digital divide not only by providing access to technology, but by providing training and services in Web navigation, search skills, and the evaluation of a given site’s accuracy and trustworthiness” (METRO, 2008, p. 29). The METRO plan is but one illustration of the increasingly vital role of the library profession in promoting information and technology literacy among historically underserved populations.

How effectively libraries will be able to execute these functions is difficult to predict, given the highly problematic national and global situations. A 2011 ALA report asserted: “If public libraries are to continue to provide critical, transformational service, local, state, and federal funding must be restored and enhanced.” Unfortunately, the report was far from sanguine about these prospects. Instead, it presented the current scenario as “a ‘new normal’ of flat or decreased funding, paired with increased demand for public library technology resources” (ALA/U of Maryland, 2011, p. 10). Essentially, contemporary librarians are confronted with the dilemma of meeting rising expectations and expanding social responsibilities with diminishing resources. Put simply, we must do more with less.

In conclusion, then, addressing the digital divide constitutes one of the most imposing challenges confronting today’s librarians. Nevertheless, it is a challenge that librarians must accept. Promoting more equitable access to digital information reflects many of the library profession’s core values, particularly access, democracy, and social responsibility. Moreover, successful efforts to promote information literacy and social justice could highlight the vital and distinctive role of libraries at a time when widespread access to Google and other search engines has generated skepticism regarding the continued need for libraries in a digital world. In the words of Sari Feldman: “Never before has the public library been so critical to the health and vitality of our nation” (2009, p. 4).

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Abstract: The library should be a welcoming place for the entire community. Sometimes during the day, our buildings can offer a tranquil respite from the outside world where patrons quietly read newspapers, take care of their Internet business, and find their favorite materials. But in some libraries as the school doors close, children of all ages come barreling into the library, turning the patrons’ and staff’s library experience upside down. How can we respect the energy and excitement of youth without ruining the experience for adults? Policies guide us in managing disturbances but often are not readily applicable for youth. Recognizing the difference between what works for adults and what works for youth is a first step in crafting policy and procedure to keep the library welcoming and safe for all user group demographics.

Policy

Every library, of every size and demographic, should have policies in place for youth. These policies must make sense to the Youth and empower the staff with the tools they need, guidelines as to what behavior is unacceptable, and suggested techniques to help manage situations in the most sensitive, but effective way possible.

During February of 2012 a survey was sent to NYLINE subscribers to find out about what kinds of policies specific to children exist in New York State public libraries. A small sample of respondents were later asked additional questions.

For most of the thirty seven libraries which answered a survey sent to NYLINE, children’s behavior is generally managed by the libraries’ standard patron code of conduct. Sixty five percent, however, did have policies for “unattended” children that specify the minimum age of children to be in the building without supervision. A smaller sample also had a policy for Internet use by minors as well as policies related to truancy. Only fifteen percent had a specific policy in place related to teens.

Reviewing policy samples provided by the Library Trustee Association of New York State, libraries across the state employ varying policies in regards to youth. A recurring theme, outside of behavior, was the age a child must be to use the library without a parent, guardian or chaperon. Ages varied widely, from eight all the way to eighteen. Some libraries use specified grade level, the majority setting the threshold at middle school, sixth or seventh grade. The average age of an unattended youth in the survey was nine; two of the responding libraries did not have any set age. Philmont Public Library had a more interesting rule, setting a time limit of ten minutes for unattended children under the age of twelve.

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Anyone below the age defined in the policy needs to be accompanied by an adult or older youth. There is often a threshold for the age of these chaperones; sometimes siblings as young as fourteen are allowed to supervise, while other policies clearly state that children must be with a parent, legal guardians, or “responsible adults.” A sample of these policies also clearly define “supervision” as being within site of the child, while others expect the adult to be directly involved in the child’s library experience. Other policies clearly state the responsibilities of the caregiver. Greenburgh Public Library expects caregivers to, “teach children appropriate behavior in the library as described in the patron Behavior code.”

All policies clearly state that the library itself takes no responsibility for children, no matter what their age, including program participants. Several of the policies on the LTANYS state that parents must stay in the building during library programs. Keeping the library from becoming a “day care center” is often a concern voiced by staff, and is the clear reason for libraries creating such policy. Some include sections of their policy that they will report unattended children to the authorities. These policies also clearly define the organization’s stance on truancy, which includes when patrons under certain ages are allowed in the building during specific times, a difficult policy to enforce because of home schooling, varying closure days, and students who drop out of traditional educational institutions.

Specific policies, like these, are an important tool when dealing with the parents, law enforcement, and in some instances school administration. A specific guideline, reviewed and voted on by a board of trustees, demonstrates that the library takes inappropriate behavior seriously. It also protects the library and staff from accusations of overreaction and in some instances bias.

Spaces

The vast majority of libraries which responded had a defined space for youth, seventy percent for teens. Several had a clear definition of who was allowed in such spaces. These rooms are often restricted to children and caregivers, but expectations are often made for educators who are doing research. Several libraries that have teen spaces set a specific age of who may be in the room. These ages vary, the majority of them being between the ages of fourteen and eighteen. Several libraries who have teen space do not state a specific age in their policy, but instead follow the procedure of asking patrons they believe are too old or too young to vacate the defined space. Libraries with defined spaces should have written policy to protect the staff and administration from claims of unfairness.

Procedure

Administrators face a major challenge in getting the library to act as one cohesive unit when it comes to all behavior issues in the library. This is where development of, and training in, procedures is paramount. As a principle, all staff should understand that youth behavior is not just one department’s responsibility. Once there is an incident, the buck is often passed from one department to another, from staff member to staff member. Larger libraries with multiple departments sometimes compartmentalize the issue. Reference and circulation services may ignore the issue, believing it is something that should only be handled by youth services or security. In smaller libraries it often falls on the shoulder of an individual, the director or children’s person services staff member.

Another issue is that youth services and teen librarians may view other members of staff as overreacting to youth behavior. Several poll respondents emphasized the need for library staff to treat patrons of all ages equally. Many youth services librarians have expressed a view that any policy may be over enforced by stereotypical librarians who prefer that children not be in the library at all. The challenge is getting staff to understand that there needs to be a healthy balance and that the library is a shared space.
Library policy will not work if it is ignored by front line staff and if the library does not adopt procedures in actually enforcing the rules. Many libraries include clear instructions for staff in their policy. Successful procedure includes written documentation and a clear line of communication from clerks to director. Caton Free Library’s Policy on Disruptive Children states that “All incidents are documented by library staff as to persons involved, date, time, a description of the disruptive behavior and a report of all actions taken.” Clear documentation and communication of infractions will help staff members who work separate shifts to stop reoccurring behavior by the same individuals, and aid the authorities when taking additional steps to protect the library.

Staff procedure for youth behavior can be crafted with the help of classroom management techniques used in inquiry based learning. Younger library patrons should be engaged in some way. If they are waiting for a computer, staff should offer them a magazine or book to give them something to do. Some libraries offer games and other non-traditional additions to the collection which keeps younger patrons engaged. Acknowledge younger patrons, even if it is just a hello, and when possible learn names of both “good” and “bad” kids. The first interaction between staff and youth should not be a reprimand. Staff should offer alternatives to expulsion after minor infractions, and steer staff away from the “one more strike and you are out” mentality. However, if a patron is given “one more chance”, it is very important that this be enforced.

Library staffs need to be clear in what the rules and expectations of youth are. There needs to be a consistency between shifts, days, and most importantly staff members. There also needs to be a clear line of communication of between professionals during staffing changes. Written reports are an extremely important tool and also provide a history. If the infractions are small, an e-mail can go a long way. The enforcement of library policy and rules need to be consistent and enforced respectfully while separating “annoying behaviors from disorderly and possibly criminal behaviors” and acting accordingly. (Brehm-Heeger) Staff should not, in any instance, make the situation personal.

Libraries with a dedicated security staff need to do their best to train them in dealing with all members of the public in a fair and balanced manner, including youth. Library professionals and security personnel need to work in tandem, and officers need to understand the mission of the library. Their job isn’t enforcing rules, but to aid library patrons in their library experience.

Small samples of libraries have adopted expulsion procedures, which included letters to guardians and even school administration, specifically in regards to truancy. In extreme circumstance authorities are sometimes asked to write a note of trespassing. In their Behavior Policy, Rensselaer Public Library clearly states that teens and children will receive two warnings, lose computer privileges, and if necessary the police may be called “for the safety and of staff and other patrons.” Almost all policies state that local law enforcement may be called, often as a last line of defense.

When creating youth related policies, involve staff in the process. Make policies based on their needs and to foster a safe and welcoming environment. It may help to involve parents, local school officials and law enforcement in the policy development process. Don’t forget the patrons themselves, if you involve youth in the process they will feel respected and invested. While this may initially add time to the process, it will save an administration from revisiting the policy sooner than they should have to.

Fostering relationships between the library and local law enforcement will also help, especially in dealing with youth. When dealing with law enforcement, a clear policy and defined line of command will go a very long way. It is also helpful to create a clear line of communication with schools. Some libraries have found success when reporting incidents to school administration.
It is extremely important to directors and trustees to make the library a welcoming space for the community. This includes youth, but should not be done at the expense of others. A component of welcoming is safety. Clear policy and well-defined procedures will go a long way in fostering a community of mutual respect, and a view by patrons of all ages that the library is a safe and welcoming shared space. An important point, as noted by several librarians stated in my survey, is that youth and adults should all be treated equally, and a loud group of senior citizens should be handled the same way as a large group of teens.

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