TRANSFORMING AN ITOY INTO AN ITOOL

Roger E. Poore
Assistant Roundtable Commissioner
Yamasee District
Georgia-Carolina Council
Boy Scouts of America

June 2016

Piedmont-Appalachian College of Commissioner Science

Ridgecrest Conference Center

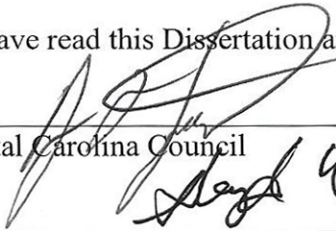Ridgecrest, NC

E.G. Stoner, Advisor

To the Doctoral Candidate Review Board:

I am submitting herewith a Dissertation written by Roger E. Poore, entitled "Transforming an iToy into an iTool". I have examined the final copy of this report for format and content and recommend that it be accepted in partial fulfillment of the requirements for the Degree of Doctor of Commissioner Science.
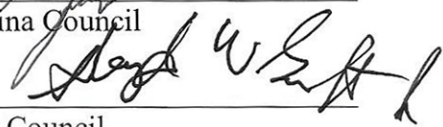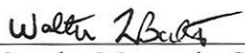
_____

Elizabeth Stoner

We have read this Dissertation and recommend its acceptance:

_____
Coastal Carolina Council
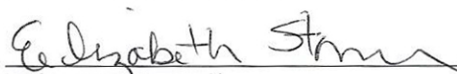
_____
Daniel Boone Council
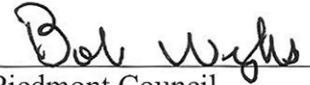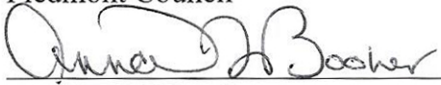
_____
Great Smoky Mountain Council

_____
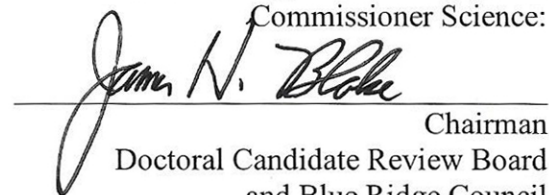Indian Waters Council

_____
Palmetto Council

_____
Piedmont Council

_____
Sequoyah Council

Accepted for the Piedmont-Appalachian College of Commissioner Science:

_____
Chairman
Doctoral Candidate Review Board
and Blue Ridge Council

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF FIGURES

ABSTRACT

The aim of Scouting is to develop our Scouts into responsible adults by applying the Scout Oath and the Scout Law in daily life. Many Scouts and Scouters are simply following traditions and precedents in their troop or just 'wing it' on their own to a greater or lesser success. Troops that absolutely forbid smartphones in Scouting — even confiscating them or locking them away — are fighting a losing battle. Smartphone technology can be used to build relationships with the troop, find useful information, communicate and share the excitement of Scouting. Scouting, at the unit level, needs to deliver a program that is fun and incorporates smartphone technology appropriately. A fully developed policy on the use of smartphones in Scouting is necessary to turn this "iToy" into an "iTool" – one that will provide guidance for Scouts and Scouters to appropriately utilize this technology.

CHAPTER I

INTRODUCTION

The use of smartphones is pervasive in today's culture. It is common for people to use the technology in every aspect of their life. Teens and even pre-teens are also using smartphone technology daily. The use of smartphones in Scouting has not been well defined and individual organization policies range from a total ban on smartphones to full implementation of smartphone technology in their program. A fully developed policy on the use of smartphones in Scouting is necessary to turn this "iToy" into an "iTool" – one that will provide guidance for Scouts and Scouters to appropriately utilize this technology.

It is difficult to assess the impact of a program on young adults until they are older. In this instance, the impact of smartphone technology may not be discerned until these young men are in the work environment. However, I have had the opportunity to not only work with Boy Scouts, but also observe their counterparts in the college environment as a student. The college age students provide a snapshot of the impact of technology such as the smartphone as these young Scouts will mature and become part of the community.

For a little more than two years, between January 2012 and May 2014, I pursued a Bachelor of Science degree in Mechanical Engineering at the University of South Carolina. While an engineering student, I was immersed in college classes during the day, but would return home in the evenings. The majority of the studying, writing of reports and labs would occur at my home which was 70 miles away from campus. Some of the reports and labs were completed individually while others were completed in groups. The groups would range in

size from two to five people, and would either be assigned by the professor or mutually agreed upon by the students to form a team. Working in groups that were 70 miles away required communication skills to coordinate, review and develop some of the written materials.

While on campus working with my different groups, sitting in classes, studying, reading, or just whiling my time away, I had the opportunity to observe my fellow collegiate students as they were going through their college experience. Although there are more women in college then men, most of my classmates were primarily young adult men. These were the folks that I would be working with over the two years together. (Yes, the engineering college still does have a higher percentage of males in engineering majors.) Since I was on campus primarily to take classes, the window of observing these engineering students would not have a number of extemporaneous factors such as living arrangements, consumption of adult beverages, and girls. The interactions were only concerning classes and the work required to be completed for those classes. The similarity between Boy Scouts, whose age range from 11 to 17, and the college students, whose age ranged from 20 to 24, was remarkably close. Both groups are trained to solve problems. The reason for pointing this out is that people in Scouting will grow up and go onto other things. Some of them will go to college, the military, and some will go onto other things such as going into the work force. By using the behaviors of the college student, we can see what to expect two to four years down the road as the Scouts become young men.

One of the main things that were observed is how students use electronics. Electronics are primarily defined as computers and smartphones. These devices were used for a number

of functions, some of which supported their classes and some that supported their life out of classes. The ability to use a computer to write a document, sketch at drawing, create a mathematical model, or prepare a calculation that can be revised are all great. Additionally, smartphones allow students to exchange information, to schedule meetings, or provide feedback to support teams or groups. Of course these are the positive aspects of using electronic devices. Some of the other things observed included students texting during classes or freely exchanging information, files, or data that is to be graded individually (i.e. cheating). These inappropriate uses of electronics bothered the instructors.

Again the similarity between college and Scouting are apparent. In college, as a student, the aim was to prepare myself for an employment opportunity and to apply the skills learned. The Boy Scouts of America's goal is to help boys develop into honorable men. Scouting values can be incorporated into a boy's home, school, and religious community, adding to all three and in some cases, filling in where family, school, and religious support is lacking. Scouting provides many opportunities to learn skills of leadership, of the outdoors, and of life. Each Scout decides what he will learn and how quickly he will do it. As he progresses, the value of his achievements will be reinforced through recognition (1).

Scoutcraft skills provide the building blocks needed to become responsible young men. These skills will help the young men apply the Scout Oath and the Scout Law in daily life. These skills can guide the Scout to become a leader in the patrol and troop, and in their responsibilities as a member of their family and a citizen of their community and nation. The structure of Boy Scouts of America at the troop level has a patrol-oriented leadership. The

Patrol Leaders meet with the Senior Patrol Leader and his assistants at a Patrol Leader's

Council (PLC) to plan the troop's programs and activities. The Patrol Leader will represent

the wishes of his patrol as decisions are being made. The patrol structure is important to

consider when developing and implementing new policies on a troop level (2). To avoid

confusion, the definition of Scout and Scouter needs to be given. The term Scouter refers to

BSA registered adults (commonly called adult leaders), and the terms Scout or Scout leader

refers to the youth that are in or lead the troop or patrol. Since Scouts provide leadership in a

boy-led troop, they will be referred to as Scout leaders in this paper.

While other reports have been prepared to evaluate the topic of Scouts using

electronics during Scout events, most do not include the Scouts in the decision-making

process of the policy of the troop. The purpose of this paper is to recommend a policy that

enables Scouts and Scouters to use or have access to electronic devices during Scout

activities. The development of a policy requires the Scouts to understand the need and

appropriate application of electronic or smartphone technology. The investigation examines

the leadership materials written for a troop and patrol, including materials created by the

founding leaders of the Boy Scout movement and recent materials developed for the youth

leaders in the troop and patrol. Since the aim of Scouting is to develop boys into honorable

young men, there are a number of materials pulled from outside of the Scouting movement

which focus on the development and organization of a group, as well as the implementation of

new policies and their impact on the organization. An understanding of the Scouting program

is needed to develop the policy on the use of electronics in a troop so that its implementation

is consistent and understood at all levels in the troop. The majority of this paper will focus on

the development of policy from the Scout's perspective.

CHAPTER II

REVIEW OF LITERATURE

Literature from multiple sources was reviewed to evaluate the impact of smartphone technology on today's youth and to develop of a useful smartphone policy for implementation in Scouting activities. This literature review is divided into four categories: (1) Smartphone Demographics and Cultural Impact, (2) Scouting Objectives, (3) Organizational Behaviors, and (4) Technology Implementation Programs and Outcomes.

SMARTPHONE DEMOGRAPHICS AND CULTURAL IMPACT

In order to understand the impact of smartphones in our society, research into its usage and demographics are evaluated.

Smartphone Demographics

In order to complete a paper on Scouts using smartphones, an understanding of how many smartphones is out in the public needs to be developed. Pew Research examined the increasingly important role that smartphones play in helping Americans access, share, and create information and communicate with others. Nearly two-thirds of American adults (64%) now own a smartphone of some kind. As in past surveys, smartphone ownership is highest among younger Americans. Some 85% of Americans ages 18-29 are smartphone owners, as are 78% of college graduates and 84% of those living in households with an annual income of $75,000 or more per year. A breakdown of the data showing the percentage of smartphone ownership per group is shown in Figure 1 (3).

Source: Pew Research (3)
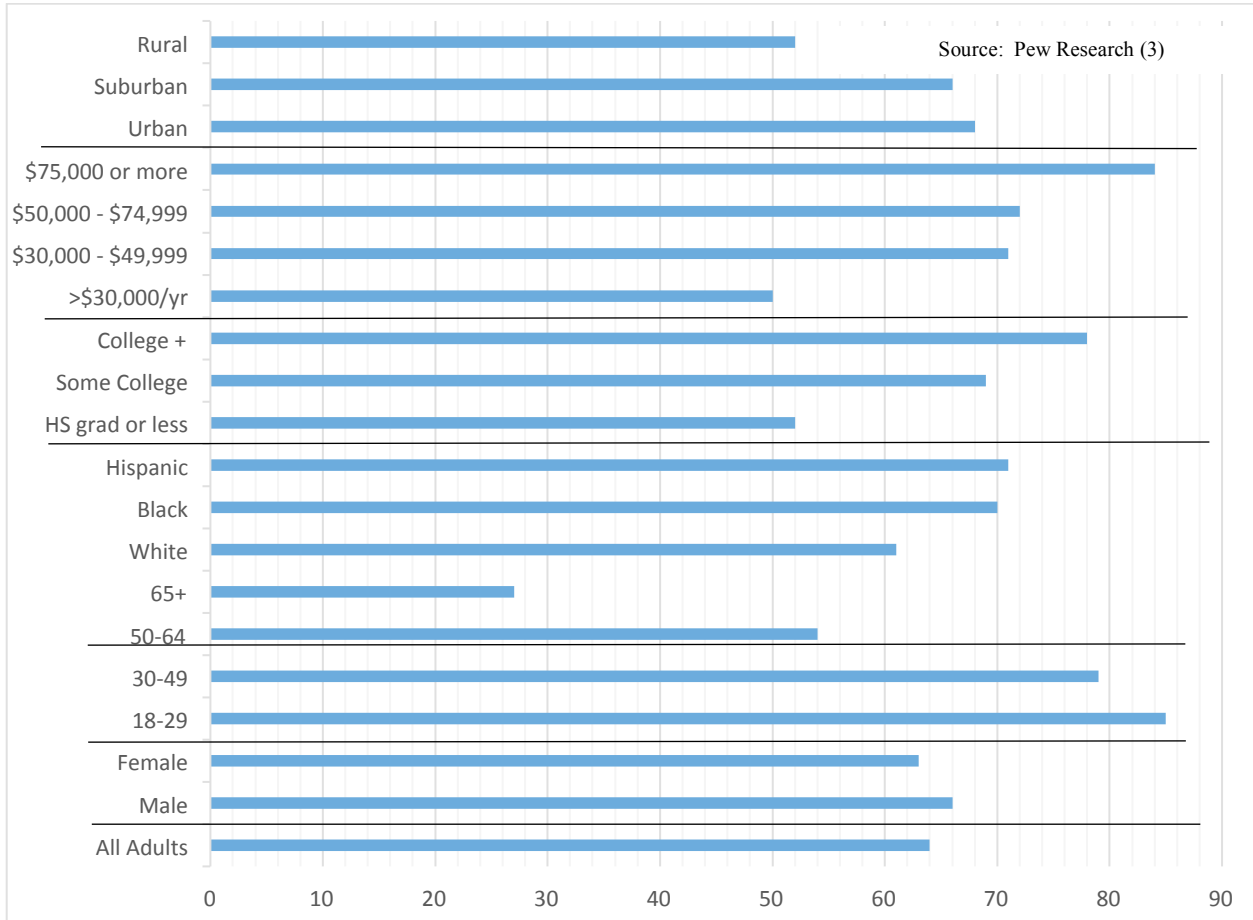
Figure 1 – Bar Chart Showing Breakdown of Various Groups of Cellphone Users (%)

In the study which evaluates the use of smartphones and personal dependency on their use, Pew Research states:

> "Those with relatively low income and educational attainment levels, younger adults, and non-whites are especially likely to be "smartphone-dependent." Lower-income and "smartphone-dependent" users are especially likely to turn to their phones for navigating job and employment resources. A majority of smartphone owners use their phone to follow along

with breaking news, and to share and be informed about happenings in their local community. Smartphones help users navigate the world around them, from turn-by-turn driving directions to assistance with public transit. This is especially true for younger users. An "experience sampling" of smartphone owners over the course of a week illustrates how young adults have deeply embedded mobile devices into the daily contours of their lives. The experience sampling survey illustrates that smartphone usage often produces feelings of productivity and happiness, but that many users also feel distracted or frustrated after mobile screen encounters. Young adults (85% of whom are smartphone owners) are also incorporating their mobile devices into a host of information seeking and transactional behaviors" (3).

This study by Pew Research offers new insights into how smartphone owners interact with their mobile devices on a day-to-day basis: the features and apps they use, the locations where that use happens, the issues or problems they use their phones to solve, and the emotions they feel as a result. Younger smartphone owners are frequent users of text messaging, but this group still makes voice calls. Email is one of the most common activities that users take part in online. Social networking, video consumption, and music/podcasts are especially popular with younger smartphone owners. Fully 91% of smartphone owners ages 18-29 used social networking on their phone at least once over the course of the study period. Features such as watching video and listening to music or podcasts are even more the domain of young smartphone owners. Three-quarters of younger smartphone owners (75%) indicated using their phone to watch videos at least once over the study period and 64% of younger adults used their phones at one time or another to listen to music or podcasts. Figure 2 graphs

the use of smartphones for various common tasks done at least once during the testing, broken

down by each age group.

Source: Pew Research (3)
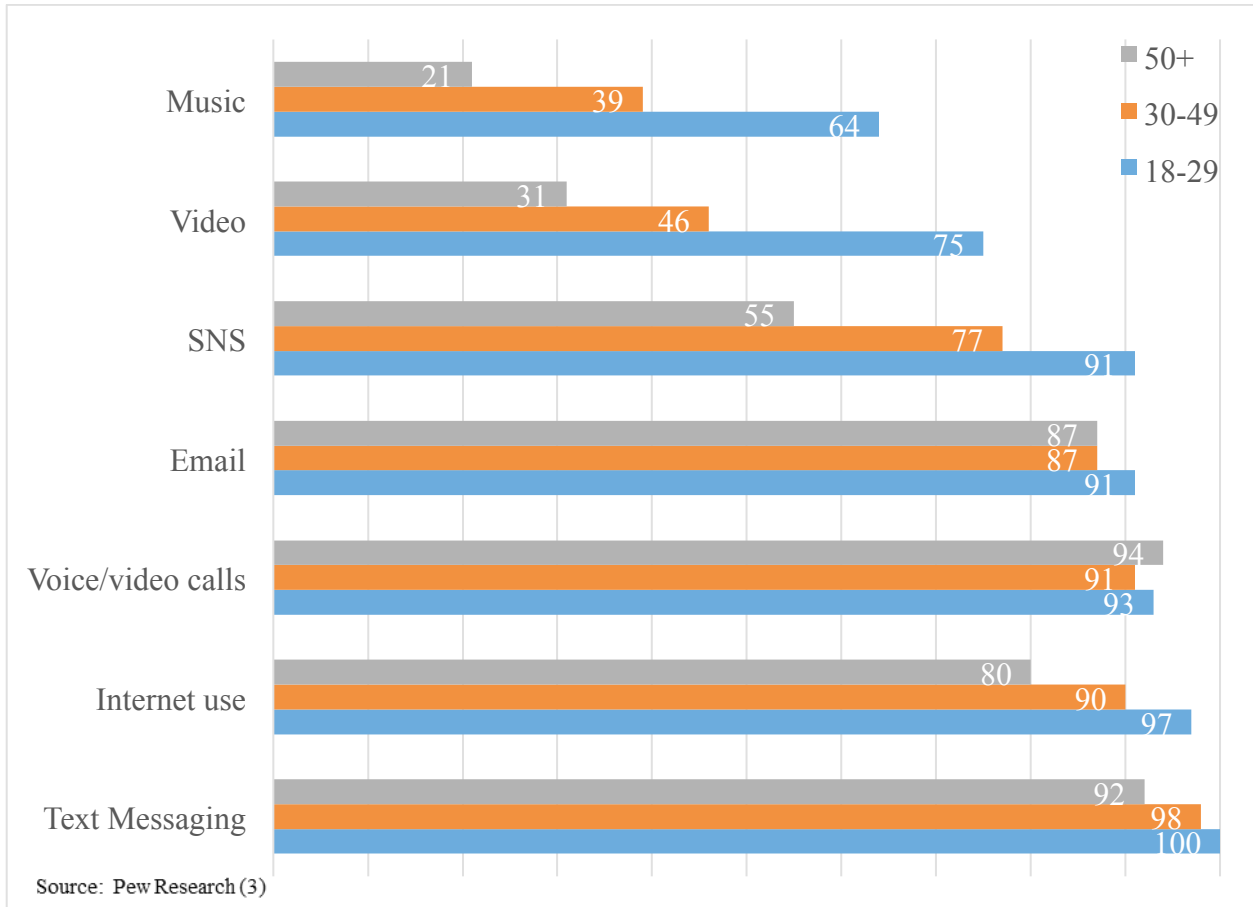
Figure 2 - Usage of Smartphone Common Tasks by Age

The study by Pew Research also shows that younger users stand out especially

prominently when it comes to using their phone for two purposes in particular: avoiding

boredom and avoiding people around them. The further breakdown is shown in Figure 3. It is

important to understand that the cultural implications of smartphone technology are similar

for all age groups, though it is more prevalent among younger users.

Source: Pew Research (3)
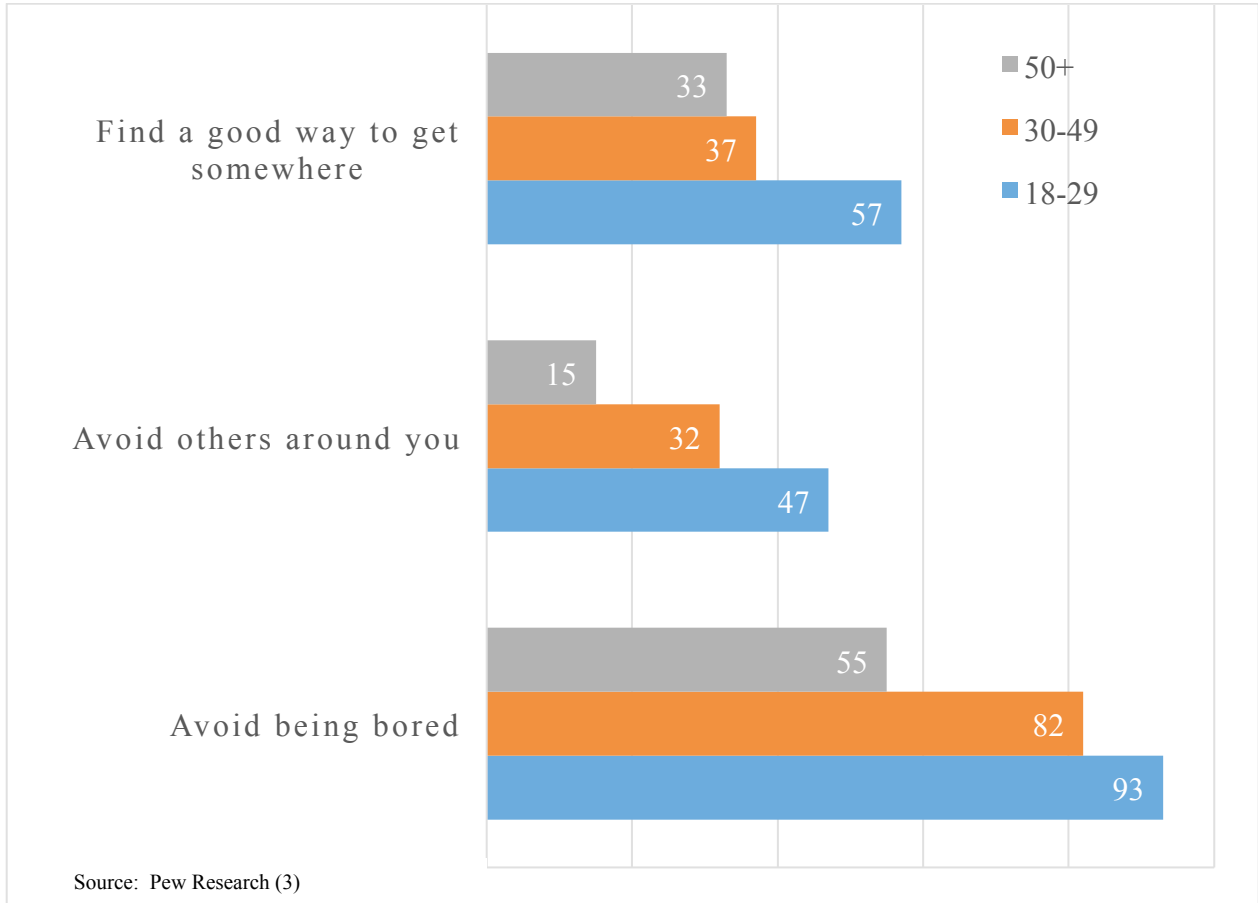
Figure 3 - Avoidance by Age

Cultural Impact of Smartphones

While there are many positive aspects to smartphone use, the negative aspects must also be mentioned. In a psychological study on smartphone dependency, it is found that people can become addicted to their cell phones in a phenomenon called "technological addictions":

"Technological addictions (TA) are operationally defined as nonchemical (behavioral) addictions, which involve human-machine interaction. They can either be passive (e.g., TV) or active (e.g., Computer games), and usually contain inducing and reinforcing features which may contribute to the promotion of addictive tendencies." (4)

Some behaviors associated with TAs are quoted as follows:

- preoccupation (i.e., when an individual is not engaged in cell phone use, he or she will have thoughts or cravings about the next opportunity to use their phone);

- mood modification (i.e., an emotional response as a consequence of cell phone use, which can be seen as a coping strategy for the individual who experiences a "high" or euphoric feelings of "escape");

- tolerance (i.e., increasing amounts of cell phone activity are necessary to achieve the former effect level);

- withdrawal (i.e., unpleasant physiological or subjective experiences such as moodiness, irritability, and anxiousness when cell phone use is discontinued or immediately reduced);

- conflict (i.e., interpersonal and/or intrapsychic dissension, such as losing one's job or relationship due to cell phone use); and

- relapse (i.e., when reverting back to "old habits" or a return to addictive behaviors after a temporary improvement) (4).

It is unknown if these behaviors are more common in younger smartphone users than other age groups. However, these behaviors are not reflective of the goals of the Scouting program and their impact must be considered when developing a policy on smartphone technology use.

SCOUTING OBJECTIVES

Scouting literature covers a host of literature sources ranging from periodicals, newspapers, web pages/blogs, historic Boy Scout books, and current training materials on Scouting. Scouting was created by Lord Baden-Powell to create a program for boys that would enhance their character and physical development. An evaluation of the issues created by technology use for Scouts, as well as identifying the leadership aspects of the Boy Scout program is described. These items provide a basis for development of a robust technology policy within the context of the Scouting program.

Scouting Fundamentals

The foundations of Scouting are described in Enoch Heise's web blog "Scouting Rediscovered." In the blog, Heise describes the creation of Scouting by Baden-Powell as a response to British leaders' concerns about the "the physical, mental, and moral strength of their youth." Baden-Powell used his training and organizational skills from his military experience to develop a program that involved "training in small groups, practicing tracking and scouting, participating in competitions, awarding proficiency badges, and etc." Baden-Powell developed a system of training that would be enjoyable and build the character of

12

young men in England, and the program spread to America and throughout the world as the Boy Scout program we know today (2).

The perception of Scouting today varies depending on your viewpoint. Some see Scouting as a leadership school for young men while others see it as a camping and outdoor organization. Scouting is a framework made of a set of core principles and methods all working together. As Heise states, *"Scouting today has reached a critical point. A lot of people are starting to think hard about Scouting and what it means, whether it's relevant, and what it should look like. Decisions have to be made right now about how we're going to define Scouting for this generation. We need a new (Old) solution to our new (Old) problems"* (2).

The framework of Scouting can be used to evaluate the relevance of the program to today's young men. We still have problems of "listless young men" who need guidance to improve their physical, mental and moral health, similar to Baden-Powell's troops who were "unhealthy, lacked initiative and had an all-around lack of good personal character". Scouts and Scouters must look at the framework of Scouting to determine elements that are needed to define Scouting for this generation, including the evaluation of technology use in the Scout program.

Boy Scout Leadership

Empowering boys to be leaders is the core of Scouting. Scouts learn by doing, and what they do is lead their patrols and their troop. The boys themselves develop a troop's program, then take responsibility for figuring out how they will achieve their goals (1).

As stated in the **Senior Patrol Leader Guidebook:**

"Scouting is built upon the boy-led troop and boy-led patrol. A Senior Patrol Leader sets an example for the behavior of everyone in the troop. When the Senior Patrol Leader sees that a member of the troop is overstepping the boundaries of the code of conduct spelled out in the Scout Oath and Scout Law, it is the Senior Patrol Leaders' responsibility to step aside with that Scout and discuss with him why his behavior is not acceptable" (5).

Some Scoutmasters struggle with the concept of a boy-led troop. It appears easier for the adults in charge to make decisions to direct and organize the program. However, it is important that the Scouts be engaged in decisions, including the development of new policies within the organization.

The **Scout Handbook 6th Edition: Scout Teamwork** emphasizes the need of each Scout to participate in their patrol under the guidance of the Patrol Leader, Senior Patrol Leader and the Patrol Leader Council. Scoutcraft skills provide the building blocks necessary to become responsible young men by applying the Scout Oath and the Scout Law to daily life. These skills develop the Scout as a leader in the patrol and troop, and are reflected in their responsibilities as members of their family and citizens of their community and nation (6).

ORGANIZATIONAL BEHAVIORS

Organizational behaviors can be examined to provide insight into the development of policies and the effectiveness of their implementation. Ethical theories provide insight into the dilemma facing Scouts and Scouters concerning technology usage. Human Performance Improvement (HPI) tools provide decision-making tools and error prevention techniques that can be applied to Scouting, particularly in the evaluation of policy development for smartphone technology.

Application of Ethical Theories to Scouting

During my time in college completing an engineering degree, one of the required courses in the curriculum is a course in ethics. The expectation is that once an engineering student transitions from school to the work place, the engineer will, at some point in time, have to make a decision that requires more than factual knowledge. The course completed was contemporary ethics which explored current topics in today's society. In this discussion on determining if a Scout should or should not be using smartphones during Scout events, two ethical theories seem to fit best. These ethical theories are Virtue Ethics and Utilitarianism. Each of these theories is briefly described in the following paragraphs.

In the ethical theory *Virtue Ethics*, the belief is that being the right type of person is more important than the right action. So a virtue is a character trait or disposition to habitually act in a manner that benefits oneself and others. The virtuous person, as a person of good will, is more likely to do what is right. In general, virtue entails hitting the mean

between vices of excess and vices of deficit. In the writing of Aristotle, he explicitly emphasized 'right being' over and against 'right action'. Many Eagle Scouts are thought of as being the right type of person.

In the ethical theory *Utilitarianism*, the desire for happiness is self-evident and universal. Pleasure brings about happiness; pain brings about unhappiness. People are naturally sympathetic and concerned with promoting the happiness of others. The rightness or wrongness of an action is determined solely by its consequences. An action is morally right to the extent that it promotes the happiness of pleasure of all of those affected by it. An action is morally wrong to the extent that it increases unhappiness or pain. The "Moral Community" consists of all sentient beings with a sentient being described as one that has the capacity to experience pain and pleasure. Two major branches of Utilitarianism are Rule and Acts. Rule Utilitarianism states that the actions are moral when they conform to the rules that lead to the greatest good. This focuses on general rules that tend to promote happiness rather than particular actions. The other version of Acts Utilitarianism states that the right action is the one which produces the greatest amount of happiness or pleasure for the greatest number of beings. It is focused upon participation actions that promote happiness as opposed to general rules. With one branch of Utilitarianism teaching to follow the rules to obtain the greatest happiness, and the other teaching to do the right actions to obtain the greatest happiness (7) but not necessarily follow the rules, there is strife between the two methods. During a Scout's life, he starts in rule based methods following the directions of the Scouts and Scouters, like Rule Utilitarianism. Later he will transition to knowledge based methods where he is still

getting some direction from the Scouters, but the Scout will need to make decisions and provide direction to the younger Scouts. During the times he is in knowledge based methods where he will encounter situations that there are no rules and will need to use Acts Utilitarianism to guide him in making a decision.

Human Performance Improvement Tools

Human Performance Improvement (HPI) is a program used in industry as a systematic approach to improving individual and organizational performance. Training material on Human Performance Indication, discussed in this section, is provided by the Institute of Nuclear Power Operators. This training focuses on obtaining excellence by preventing mistakes. Error prevention methods and the generic modeling system based on knowledge-, rule-, and skill-based errors are discussed in this paper. HPI tools can be applied to Scouting in order to evaluate the impact of technology use in the program and assist in the development of an appropriate policy for Scouting (8).

Error Prevention Principles

Error prevention principles describe methods that can be employed to minimize human errors that can damage property or harm people. As described by the HPI training materials, "Error precursors are, by definition, prerequisite conditions for error and, therefore, exist before the error occurs*"* (8).

As used in the nuclear industry, there are two ways to prevent human error from disturbing the plant or harming other important assets: either keep people from making errors

(error prevention) or prevent the errors from harming the plant (defenses). The design of plant systems, structures, and components aids in performing the latter through engineered controls such as physical barriers, interlocks, keyed parts, shaped/color-coded controls, automation, and alarms. However, the prevention of errors generally depends more on people, either the performer or other people.

Information Processing

Information processing (sensing-thinking-acting) operates in one or more of three modes: skill-based (SB), rule-based (RB), and knowledge-based (KB) performance. The performance mode is usually a function of the familiarity an individual has with a specific task and the level of attention (information processing) a person applies to accomplish the activity.

Error modes are the prevalent ways people make mistakes—not the only way—for the particular performance mode. Error modes are generalities that aid in anticipating and managing error-likely situations aggravated by inattention, misinterpretation, and inaccurate mental models, as shown in Figure 4 below (8).

The definitions of the information processing modes are:

"Skill-based performance involves highly practiced actions in very familiar situations. They are usually executed from memory without significant conscious thought or with little attention (Figure 4). Behavior is governed by preprogrammed instructions developed by either practice or experience and is less dependent on external conditions.

Rule-based performance is based on the selection of stored rules derived from one's interpretation of a change in the work situation; it follows an IF (symptom X), THEN (situation Y) logic (denoted by the Δ symbol on Figure 4). The situation, although possibly familiar, is usually unanticipated. Problems or challenges encountered during a task usually require a different skill than originally planned to accomplish the task successfully. Rules are necessary for those less-familiar, less-practiced work activities for which a particular person or group is not highly skilled.

Knowledge-based performance is a person's response to a totally unfamiliar situation (no skill or rule recognizable by the individual). The person relies on his or her understanding and knowledge of the system, the system's present state, and the scientific principles and fundamental theory related to the system to develop an appropriate response. People enter into a knowledge-based situation when they realize they are uncertain about what to do (denoted by the ? symbol in Figure 4). If uncertainty is high, the need for information becomes paramount. Because uncertainty is high, knowledge-based tasks are usually stressful situations. Knowledge-based performance is the riskiest performance mode when it comes to the likelihood of error." (8).

Figure 4 illustrates the distinctions between the three modes of performance. Uncertainty declines as knowledge about a situation improves (learning and practice). Consequently, familiarity (knowledge, skill, and experience) with a task will establish the level of attention or mental functions the individual chooses to perform an activity. As

uncertainty increases, people tend to focus their attention to better detect critical information needed for the situation. People want to boost their understanding of a situation in order to respond correctly. But people tend to default to the lowest level of mental effort they perceive necessary to accomplish the task (avoidance of mental strain). As a result, information important for the situation may be missed. The level of information processing is usually dependent on the individual's training (knowledge and skills), experience with the task (familiarity), and the frequency of performing that task (proficiency). Also, the individual may (likely) alternate between each level of information processing during any given task, regardless of its simplicity or frequency (8).
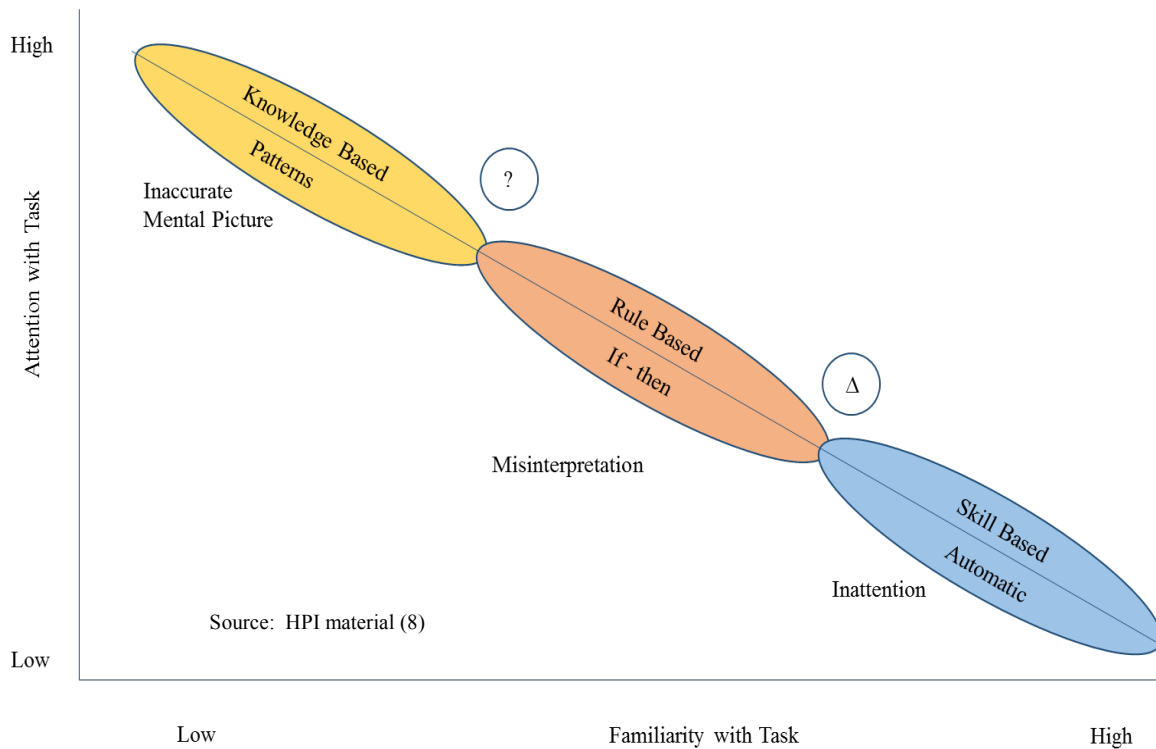
Figure 4 – Likelihood of a Mistake

Generic Error Modeling System (GEMS)

A flowchart, provided in Figure 5, shows how humans select the level of information processing for a particular performance situation, work or play. Depending on the individual's perception of the situation, he or she will chose a processing mode—that is, a performance mode—that seems appropriate to control the situation. Awareness of the performance mode chosen for a specific task helps a person anticipate the kind of errors that could be made and which error prevention techniques would be most effective.
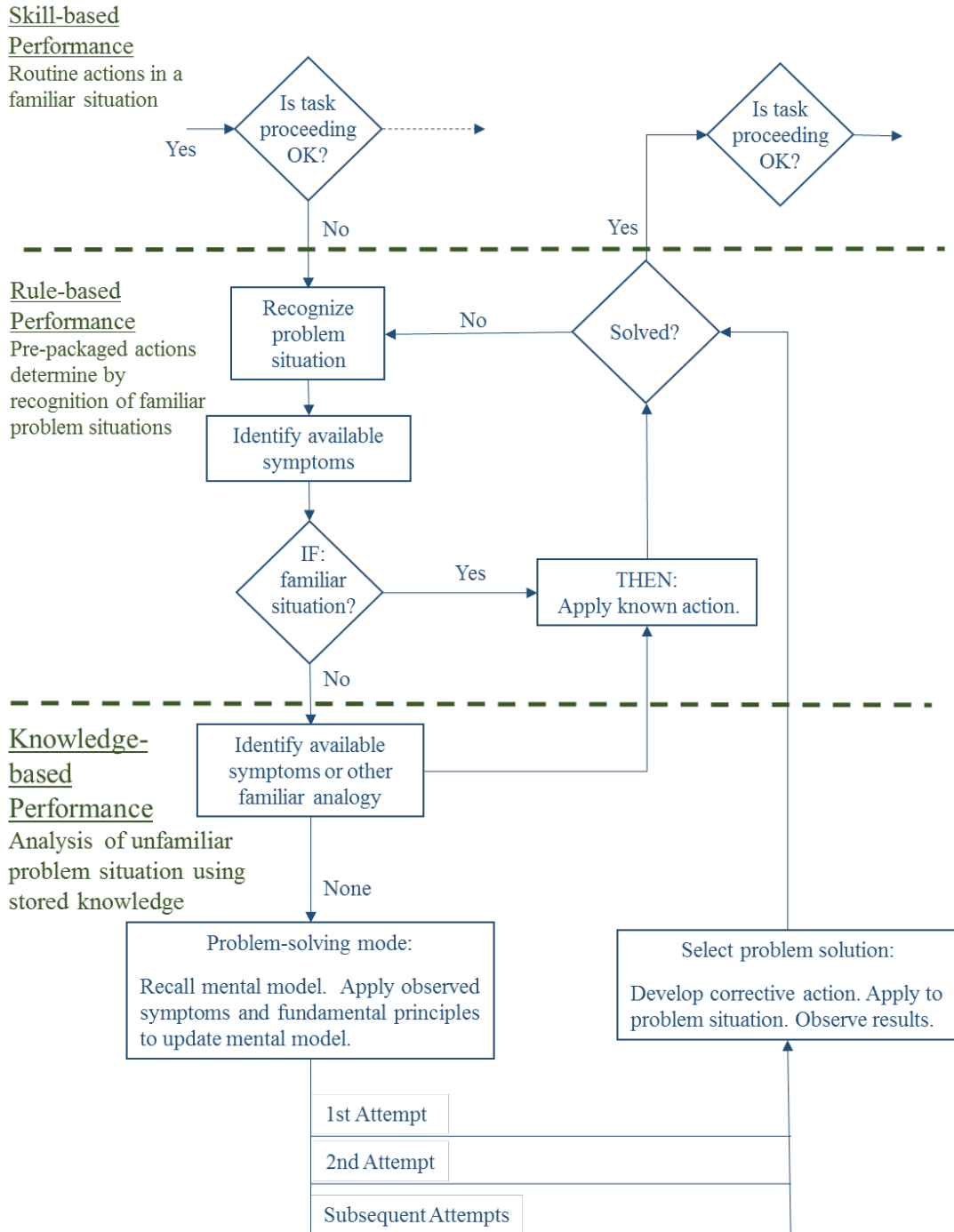
Source: HPI material (8)

Figure 5 – GEMS Flowchart

TECHNOLOGY IMPLEMENTATION PROGRAMS AND OUTCOMES

There are a variety of programs that have been developed that implement technology in their organization. The two areas most applicable to this evaluation are a review of a high school technology policy and Scouting-related information.

Silver Bluff High School Cell Phone / Electronic Devices Policy

One of the main needs for young men is to have a stable, consistent policy that makes sense in that it can be easily explained. Having the stability of having a policy is not to be confused with that a policy is agreed upon by all. There are a myriad of high school newspaper articles explaining why their school's cell phone policy *"like sucks."* The following is the Silver Bluff High School's cell phone policy where my sons attend (9).

"Cell phones/electronic devices may serve as an outstanding instructional tool and learning resource if used appropriately. We encourage our staff members and our students to use electronics and other 21st century devices to supplement instruction and learning. Cell phones/electronic devices must be turned OFF before you enter any classroom, office, library, locker room, lab and/or auditorium. Once inside any of the aforementioned locations, students must store their cell phones/electronic device in a location that is not visible to the teacher or other students, even though they are OFF.

If a cell phone/electronic device rings, vibrates, or is used for any reason, it will provide a reasonable basis to take the phone/electronic device for the rest of school day and to provide administration with the ability to view the last activity

including texts or browser visits to see if there has been a related disciplinary violation (such as cheating; taking pictures; inappropriate website visits; etc.) with reference being made to Item III (D) of the Code of Conduct."

The school applies disciplinary consequences if the technology is used inappropriately. Note that a student is in school approximately seven hours per week day for 180 days of the year. In comparison, a Scout meeting is approximately 90 minutes a week.

Technology Programs in Scouting

Cyber Chip is an award developed for Boy Scouts of all ages to help families and volunteers keep youth safe while online. One of the BSA partners in developing this program, NetSmartz®, has developed four groups which are broken down by the Scout's age/grade. The Scouts learn about topics on cyberbullying, cell phone use, texting, blogging, gaming, and identity theft. While completing the cyber chip, a troop, pack or crew should also provide their unit's rules on use of electronics. The Cyber Chip can be used as a tool to show skill and a commitment to do what's right in the cyber world. Many unit leaders will be using the Cyber Chip before allowing any electronic use on outings—this is a decision each unit can make on its own, much like the Totin' Chip is used today. The requirements for the Cyber Chip can be completed during a regular meeting. Upon completion of the Cyber Chip training, a Scout knows how to be responsible online and what to do if he discovers unsafe internet practices. He accepts this responsibility and is hereby granted cyber rights for one calendar year. The Chip expires after one year (10).

In the **Guide to Safe Scouting Manual**, the Boy Scouts of America has identified that electronics and their interface to the world-wide-web are a concern and have attempted to address this by identifying inappropriate behavior and where these could occur. Inappropriate behaviors include taking photos and posting them to the internet or Facebook of Scouts or Scouters near shower houses, restrooms, or other areas where privacy is expected (11).

The course iToys to iTools was presented at the 2015 Georgia-Carolina Council University of Scouting to educate Scouters about applications for smartphones that aid in Scoutcraft. Apps for pioneering, knot tying, lashing, cooking, first aid, reptile identification (venomous and non-venomous), plant identification (poisonous and non-poisonous), and astronomy are just a few reviewed quickly in the short time in the class. The purpose of the class is to help identify applications for mobile devices that can aid a Scout in first learning, then developing, these skills. The intended emphasis of the teaching materials is that these apps can be used over and over by the Scout to demonstrate the proper methods and techniques. This will allow a Scout to practice a task until he becomes proficient at it. An unintended consequence is the Scout has lost, on occasion, the distinction between showing and doing. For example, if a Scout is requested to "Show me a square knot," the Scout may open the knot app to show the Scouter a square knot. The Scout leadership must employ the Explain, Demonstrate, Guide, Enable (EDGE) method while using mobile applications and smartphone technology to ensure that the Scout understands that they must be able to perform required tasks, such as those required for rank advancement.

Other Scouting Technology Programs and Outcomes

Gary Butler, BSA Deputy Chief Scout Executive and Chief Operating Officer wrote an article for *Scouting Magazine* that provides some insight concerning the use of smartphones in the Scouting program (12). One of the key questions asked in this essay is, "Does the use of a smartphone as part of Scouting's activities disrupt the experience, or can it be a "cure" to make our current experiences more relevant to today's youth?"   Butler compares the smartphone to learning the appropriate use of a knife as a young Scout (i.e. earning the Totin' Chip). A smartphone, used properly to its full potential, could lead to a great Scouting experience. Smartphones can provide instructional materials that can be used in a variety of Scouting settings, such as first aid, knot instruction, plant or animal identification, etc. Smartphones can be used as a compass, or perhaps even more importantly, as a camera to capture these items for later sharing with friends and family. Butler states that BSA can develop a program to teach the proper use of a pocketknife, therefore it should be possible to do the same with a smartphone.

One troop's technology policy, based on the Scout Law, is detailed in an article by Brian Wendell in the *Scouting Magazine* blog. Scoutmaster Klemens of Troop 96 from Grayslake, Illinois, compared smartphones to a pocketknife, and is quoted as follows:

- Both are tools.

- Both could be toys.

- Both can be used recklessly.

- Both can hurt people.

26

- Both can be highly useful.

- Both require training for proper use.

- Both can, at times, scare people.

- Neither is going away.

"We don't ban knives, hand axes or gas lanterns," Klemens writes. "We teach their use. Similarly, we don't ban technology. We teach its use" (13).

Troop 96 came up with a technology policy that uses the familiar 12 points of the Scout Law. This article is provided in Appendix A of this report.

Interestingly, a widely publicized event in 2015 has prompted additional discussion of the appropriateness of the use of smartphones by Scouts. A Scoutmaster was exploring caves in a New Jersey wilderness area with his son and friends when he was severely injured by a bear attack. The boys were able to contact emergency dispatchers using the Scoutmaster's cell phone (14). Though this was not an official Scouting activity or outing, the use of the cell phone was instrumental in rescuing the Scoutmaster and the Scouts.

CHAPTER III

RESULTS AND DISCUSSION

Due to the pervasive growth of electronics and applications that can be used on them, the use of smartphones has grown from a novelty to a mainstream device that is used and accepted in almost all facets of an adult or youth's life. Many Scouting organizations unofficially ban the use of cell phones during troop activities; many in our local council are lacking technology policies. Scouters need to develop techniques to apply smartphone technology into their units' Scouting experience for both the Scout and the Scouter. There are issues that need to be addressed, whether systematically through policy developed by BSA for the implementation at the unit level, or through the unit's policy developed by the individual unit's leaders. A method, policy or plan that addresses technology issues should be created at the local unit level (in absence of a national BSA policy) that is a win-win for both the Scouters and the Scouts.

One of the aims of Boy Scouting is to prepare youth for adulthood. This preparation needs to include what is current in today's society. The Boy Scouts have incorporated a number of topics into their program, such as bullying and physical abuse. By looking into the past at the foundations of Scouting, and the changes that were developed during the decades after the start of the Scouting program, there are subtle changes to the program over time. For example, originally, the Scout law did not have twelve points to it, but instead had ten. Cleanliness and reverent were added to the Scout law by Baden-Powell. Application of smartphone technology is just a new topic today that needs to be addressed.

Application of ethical models, human performance improvement tools, and Scouting basics are discussed to identify their roles in the development of a consistent, robust technology policy for local Scouting units.

APPLICATION OF INDIVIDUAL ETHICAL DECISIONS FOR SCOUTS

Utilitarianism is an ethical theory that many people agree to and follow. The greatest good for the people is the basic tenet of this theory. Aspects of Utilitarianism include authoritarian rule for a group to achieve the greatest good and the individual application of moral rules. An understanding of the difference between the rule of law and the rule of morals needs to be understood by the Scout. As one of the tenets of the Scout Law, "A Scout is Obedient," requires a Scout to obey and follow rules. These rules could be a game (i.e. card game or sport game), a law (i.e. traffic laws), a policy (i.e. school smartphone policy), or manners (i.e. saying please & thank you). If all rules were not followed, there would be complete anarchy where no one trusts another. Without having rules (i.e. laws) to follow, there would eventually be stealing and looting of goods, i.e., an anarchy. Having a Scout know and follow the rules of the group is important.

But not everything has rules as a basis for doing the greatest good. If you were to look at a playground to see the children playing, most of them are not following any rules to play. There are no posted rules (other than the occasional safety guidelines) at the playground to tell children how to play on the swings, teeter-totter, monkey bars, or slide. Children will share, take turns, play in groups or cooperate with each other to get the maximum enjoyment for

everyone. When these are not applied, there tends to be arguments, fighting, and feelings hurt

by the children.

This moral compass is guided by the two stars of the Scout Badge, truth and

knowledge, which allow a Scout to make the right decision alone and to know the basis of this

decision. Following the rule of law and the rule of ethics are not always consistent with each

other. The **Diary of Ann Frank** illustrates this ethical issue for an individual and her family.

The rule of law was enforced by the German occupation forces, while the collective conscious

of the family was different than the rulers of the land. The family believed that the

occupational government's treatment of the Jews was wrong and they worked to protect a Jew

by hiding her in their house.

Character development in Boy Scouting works toward three aims.

1. Growth in moral strength and character. We may define this as what the boy is

   himself: his personal qualities, his values, his outlook.

2. Participating in citizenship. Used broadly, citizenship means the boy's

   relationship to others. He comes to learn of his obligations to other people, to the

   society he lives in, to the government that presides over that society.

3. Development of physical, mental, and emotional fitness. Fitness includes the body

   (well-tuned and healthy), the mind (able to think and solve problems), and the

   emotions (self-control, courage, and self-respect).

By reviewing the aims of Scouting, the Scout gains a sense of values of what is right,

wrong and why. Sometimes these values will require the Scout to think because what is being

asked is beyond the rule-based values. At times, a Scout will have to determine what is right and wrong using the aims of Scouting, and the truth and knowledge that have been provided to them through the Scouting program, their family, and community.

The ethical decision-making process is one that is needed to evaluate the use of technology in a Scouting program. Contradictory positions on technology use have been demonstrated by the Boy Scouts of America program at the national level, and the written or unwritten technology policies of the local organizations. The national Boy Scouts of America shows Scouts in a number of ways using electronics. The various books (i.e. Scoutbook, Field Book) show Scouts on outings using Smartphones to take photos and applying the smartphone's Global Positioning Systems to Scoutcraft activities like Geocaching (15). Additionally, the 2013 National Jamboree at the Summit Bechtel Reserve utilized a wireless network in order to connect participants with friends and family. Previously, BSA organizers were opposed to the concept of using electronics during the Jamboree. Despite many examples of BSA national publications promoting electronics usage, many units at local levels forbid or strongly discourage the use of electronics.

USING HUMAN PERFORMANCE IMPROVEMENT TOOLS TO DEVELOP A SCOUTING TECHNOLOGY POLICY

"The only real mistake is the one from which we learn nothing." – Henry Ford

Leaders learn from their mistakes. This is applicable to Scouting as well. Human Performance Improvement (HPI) tools can be used to evaluate the error (mistakes) made and

identify methods to minimize the errors. The HPI tools can be used to understand errors that result from the use of smartphone technology and to develop a policy that addresses these errors and behaviors.

One of the HPI tools discussed in the previous section is the Skilled Based - Rule Based - Knowledge Based model approach to problem solving. In the Scouting program, most Scoutcraft skills start in the rule-based portion, then transition to skill-based techniques after practice and experience. Some examples of these Scoutcraft skills are the Totin' Chip (knife) and Firem'n Chip (Firestarter) awards, where the Scout is taught the rules to properly use the associated tools. These awards are basic requirements in a Scout's progression in the program. However, the BSA Cyber Chip has not been as widely received into local Scouting organizations. The Cyber Chip instills the proper use of electronics and the things in cyber space (i.e. Facebook, Myspace, Snapchat, etc.).

The second tool picked up from HPI is the "Swiss Cheese" Model for error prevention. Originally, the concept of the model requires an alignment of numerous errors for an event (i.e. accident) to occur. An event can be a number of things (i.e. injury, breaking equipment, transfer error, criticality, etc.) but can only occur when policies, procedures, training, and verification are not followed as they have been developed. Similarly, errors in the form of hazards or distractions can and do occur in Scout groups.

The "Swiss Cheese" error prevention model for Scouting is shown in Figure 6. The building blocks for the Scouting model are:

1. Scouting's Aims

2. Troop's Scouters

3. Troop's Policies

4. Troop's Senior Patrol Leader and Patrol Leaders

5. Peer to Peer

6. Scout's Buy-in

The elements that comprise a Scouting program need to be aligned to prevent the distractions and hazards from smartphones. The need for positive reinforcement to support the goals of Scouting has not changed, but the distractions and hazards in today's society require a greater diligence due to the error-likely situations Scouts will encounter. The potential for mistakes exist at each step along the process. Each individual behavior by the Scout and the Scouters will affect the overall behavior of the troop.

The Swiss Cheese
Error Prevention Model
Applied to Scouting

Distractions and Hazards

Scouting's Aims
Troop's Scouters
Troop Policy
Troop's Senior Patrol Leader
& Patrol Leaders
Peer to Peer
Scout's Buy In

Fulfilling the
Goals of
Scouting

Good events, like good Scouts, don't typically occur randomly, but are due to things lining up.
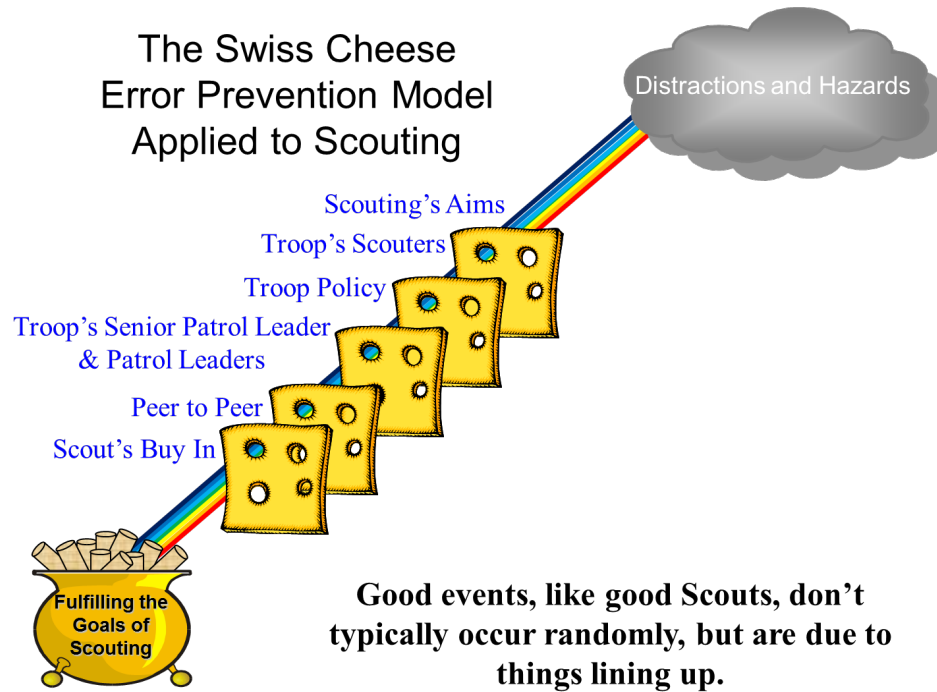
Figure 6: "Swiss Cheese" Error Prevention Model Applied to Scouting

1. Scouting's Aims

Scouting for Boys remains the basis for Scouting and the source of inspiration for

Scoutmasters (16). Scouting was created by Lord Baden-Powell to create a program for boys

that would enhance their character and physical development. An evaluation of the issues

created by technology use for Scouts must fit into these ideals.

New Scouts and Scouters are embracing the technology changes by using electronics,

the internet, the cloud, etc. Each month there is some topic of interest in *Scouting Magazine*

that show the impact of technology changes taking place in the Scouting community. The

Boy Scouts of America developed the Cyber Chip as a way for Scouting to develop the

requirements and skills for the Scouts. Many of the elements in the requirements develop the Scout for later in life. Not everyone is trustworthy and the Scout needs to learn how to safely use the internet.

2. *Troop's Scouters*

The Troop's Scouters, in addition to the Scoutmaster, need to develop a relationship with the Scouts based on truth and trust. There is a saying at my church about the people that support missions: "they do not care how much you know until they know how much you care." One of the methods of Scouting is for the Scout to associate with adults to enable interaction with adults. This can be achieved when the adult is working with the Scout in a symbiotic relationship, such as using the EDGE method to teach new skills. The aim is to create a troop policy in such a way that the Scout can follow the adults' position while allowing the Scouts to lead their troop.

A Scoutmaster's conference is part of each rank's requirements in Boy Scouts. According to the Boy Scouts of America charter "The purpose of Boy Scouting is to develop in a young man the ability to do things for himself and for others, to train him in outdoor skills, and to teach him patriotism, courage, self-reliance, and kindred virtues." We use the methods of Scouting—including advancement, the outdoors, and adult association—to accomplish these goals. The Scoutmaster conference allows the Scoutmaster to review the Scout's growth in his understanding of Scouting's ideals, how the Scout applies these ideals in

his daily life and in the troop, and the requirements of the Scout's next rank so that he can be properly encouraged.

Identifying how the Scout applies Scouting ideals into his daily life requires the Scoutmaster to inquire about structured areas like family, school, clubs & groups, and church, and non-structured areas like play, friendships, sports, peer pressure or special activities. Questioning on non-structured areas may include the use of electronics for playing games, sending email and text to friends, family, et al.

Scouters need to be aligned with the organization's technology policy to ensure that consistent rules are applied to all Scouts and Scouters. When leaders are not open to alternate ideas or methods, the parents or their sons leave Scouting by voting with their wallet or their feet. The value gained from Scouting may be lost due to the alienation of the Scouts and their family.

3. *Troop's Policies*

Another aspect of the error prevention model is the identification of the Troop's policies. Key questions about the policies include "Does everyone know what the troop's policies are? If not, where can they be found? Are they easy to understand so that they can be explained? Are the policies consistent with the age, maturity, and responsibility of the Scout leaders, and Scouts within the troop? Does the policy grow and change with the growing needs of the Scouts?" Only the Senior Patrol Leader and Patrol Leader have "Leader" in their position title and provide leadership of the troop under the guidance of the adult Scouters. A

policy created for a youth of age 10 will not meet the needs to the Scout that is 17. Likewise a policy that is created for the needs of a 17-year-old Scout would be overwhelming for a 10-year-old Scout.

The troop's program needs to promote the reasonable use of electronics. This does not imply a program that is "one-size-fits-all". There are times that the use of electronics is useful and supports the troop's program, such as the applications that provide learning opportunities (e.g. nature, skills, etc.). There will also be times where the use of electronics does not support the troop's program, such as times when it is important to focus on the activity and experience the event. And finally there are times when Scouts need to be on their own to decide what they want to do in order to ensure they are engaged and do not get disenchanted with Scouting.

For a policy to be effective for the Scouters and germane for the Scouts, there needs to a consistency between all aspects of organization. The policy for the use of electronic technology needs to support the aims of Scouting by supporting the Scout in their growth and development from a boy to a young man. The policy needs to be developed with flexibility to accommodate a young Scout just entering a Boy Scout troop by limiting the use of electronics, and there should be a focus on developing the relationships of the youth. With time, maturity, and responsibility, the Scouts will find reasons to use smartphones in teaching skills, communicating, and organizing.

In addition to learning about errors, Scout leaders, as well as Scouters, need to know how their actions fit into the implementation of their troop's policy. Without the complete

cooperation of all the leaders, the policy will become misaligned which will adversely affect the implementation. If the needed cooperation, which will have to include trust, does not exist between the Scouters and the Scout leaders, the policy will become an edict with the Scouts wondering why there is this policy in the first place.

4. Troop's Senior Patrol Leader and Patrol Leaders

The leaders of the troop – that is the Senior Patrol Leader and the Patrol Leaders – should exemplify the troop's policy on using smartphones during meetings, activities, and outings. The leaders need to be able to explain what their policy is and its basis to the members of their troop and patrol. This needs to be an explanation, not a reprimand, to the Scout that is not following the troop's policy. This mentoring of new Scouts and patrol members brings forward that the leaders of a troop and patrol are not only there to direct and lead their activity, but are also there to lead by teaching the members of their group.

One of the methods used in my work environment is called the "Challenge System". The challenge system pertains to personnel not having their security badge present. When a badge is not present, a person is to simply ask or point out "Where is your badge?" This is a quiet and subtle reminder to a fellow employee that something is not right. This same idea can be used in Scouting by Patrol Leaders and the Senior Patrol Leader. Simply asking the question "Why is a smartphone needed for this activity?" can start a conversation. In some cases, using a smartphone is exactly what is needed to solve a problem. In other cases, it is a distraction from what is going on in the meeting. An example of good use of a smartphone

occurred with me a few months ago. A youth was completing a Scout application so that it could ready for his mom to sign in the parent/guardian signature block. He pulls out his smartphone and starts to search through it. The simple question "What are you doing?" was asked. He responded, "I am looking up my mom's e-mail address." It exemplified the reason that sometimes smartphones have a place in Scouting.

Leaders (i.e. Patrol Leaders, Senior Patrol Leaders, et al.) are, at times, working from knowledge-based performance. From HPI models, the success of completing a task correctly is about 50% while working in a knowledge-based mode; therefore, when Leaders are learning to lead, they are expected to fail as much as they are expected to succeed. The purpose is to learn how to lead, and learning from one's own failures is a teaching method. Communication is a key element to leading. All of the Scouts in the patrol or troop need to know basic information of the events and activities planned. By using texting, email, or phoning a leader can inform the group of the key elements of an activity (Who, What, Where, When, How, and Why). The use of electronics should also be a tool that leaders learn to use to support the troop and patrols.

Scouts learning the skills of being a leader need to have some rules established for the actions of the members of the patrol and troop. The policy on the use of cell phones needs to be in the rule-based spectrum to maximize familiarity and minimize attention required. The Scout should not have to think "Am I following my troop's smartphone policy?" to be able to follow the policy.

5. *Peer to Peer*

Baden-Powell stated that the aim of Scouting is to have "Fun with a Purpose." Nobody promotes Scouting as much as a Scout having fun. When the Scout is talking to his friends about the adventures on the woodland trails and how they overcame obstacles, it provides motivation for the friend to want to join Scouting too. While having fun, no one instills the rules and policies better than a Scout with his Scout buddy or peer.

When Scouts are not having fun, they will find something to occupy their time. The Pew Research and the psychological papers about smartphone usage both agree that one of the coping mechanisms is to use a smartphone as a way to avoid a situation or people. In other words, a Scout will find something to do – whether good or bad – to fill their time.

6. *Scout's Buy-in*

The Scout must understand and embrace the technology policy or he will not follow it. The use of a smartphone is an ethical decision that a Scout is required to make. Most people would think that pulling out one's electronic device is not an ethical decision because this action occurs so often. But if a Scout is following the Scout Law and is going to be courteous and kind to those that are in his group, he must become aware that his actions could not be supporting the group, a distraction to others, and can potentially remove the Scout from being a participant. The utilitarian ethic would lead the Scout to provide the greatest good for the group. Also, Scouts are the epitome of the virtue ethic in that a Scout in uniform has certain

expectations by the public and the Scouting community. The proper use of electronics would just simply be another expectation of a Scout.

PREPARING FOR ADULTHOOD

The examples provided of the young engineering students show what and how young adults are dealing with access to computers, smartphones and other electronic equipment. The aim of Scouting is to prepare Scouts for becoming adults. This preparation needs to include not only interactions with people at a personnel level, but also include interaction with people in the virtual world.

CHAPTER IV

DEVELOPMENT OF A UNIT TECHNOLOGY POLICY

Each day there are new challenges as new things give new capabilities with greater ease. With these changes, the ability to control who and what does and does not go on at a Scouting event or activity becomes overwhelming. One way of solving this problem is to eliminate it. No electronics, nothing, nada, zilch! But is this realistically preparing a Scout in today's society? The research shows that 75% of young adults have smartphones while 84% of adults do (3). Therefore, most of the older Scouts have smartphones and almost all of the adults have smartphones too. Maybe we should embrace the changes by limiting the use of smartphones (or whatever will eventually replace a smartphone) for all the participants in a Scout unit. Rather than ignore the issue of technology, the Scout unit must develop a policy that is easy to implement.

Several key points that a unit technology policy must have include:

- Policy must not limit personal freedom.

- Supports the group (i.e. patrol, troop)

- Supports rank advancement.

- Supports the **Safe Guide to Scouting**.

- Support the aims of Scouting.

- Implemented by the patrol method.

- Supports the development/maturing of Scouts.

The policy has to be about the people, both the adult Scouters and the youth Scouts, and must be developed and implemented jointly.

PROPOSED SCOUTING TECHNOLOGY POLICY

1. Scouts and Scouters can carry a mobile phone (i.e. smartphone) at Scout activities. The technology's usage depends on the activity and the Scout's leadership position in the organization.

2. The electronic technology should support the activity being performed or used during free time when no other activities are scheduled.

3. Appropriate use of the technology is required in a manner that is respectful to all. Inappropriate use of this technology will result in the electronic device being turned over to a Scouter for the remainder of the activity and any materials posted on-line will be removed.

4. Scouters should mentor the Scouts on appropriate use of technology.

5. Each Scout must complete the BSA Cyber Chip award annually that is provided and supported through troop activities.

6. Development of the policy should be agreed upon by the Scouts and the unit's Scouters.

The intent of this policy sets limits on the use of cell phones so that they are incorporated into supporting the troop's program. Usage should allow this technology to be used to learn from virtual sources or communicate with troop members. This policy is not

intended to be a replacement or substitution for the troop's program. A good example of a

Scouting technology policy that meets the principles described above is found in Appendix A.

CHAPTER V

SUMMARY

"When Scouting has failed it has been because we have departed from the Patrol System and have failed to trust the boys with responsibility, because we have made our Scouting too nearly a school subject and not a life of joyous venture. Boys, particularly those who have reached adolescence, demand a challenge to their powers of mind, body, and spirit. Scouting can and does provide that challenge if we use it right." -- Lord Rowallan Chief Scout (16).

The research by the Pew Foundation is finding that the ownership of smartphones is still growing. In the previous study completed in 2011, 35% of smartphones were owned by adults. The same study completed in 2015 found that the percentage of smartphones had increased to 75% for youth and 84% for adults (3). However, the rate for new cell phone ownership is starting to decrease because the market is reaching saturation. The ownership of smartphones is seen across all socio-economic levels.

In Scouting there is consistent resistance to incorporating the use of smartphones and other electronics into local Scouting programs. Using smartphones is perceived in some way as diminishing the outdoor experience, but many outdoorsmen (and women) use a myriad of electronic technologies to hunt and fish. The non-use of electronics in Scouting is not consistent with the material published by the Boy Scouts of America. Repeatedly, the BSA shows the use of electronics in training manuals for both the Scouts and the Scouters, merit badges, awards (i.e. Cyber Chip) by both Scouts and Scouters.

Statistically speaking, most adults and young adults (i.e. Scouts) use cell phones or smartphones in many aspects of their lives. The lack of a policy on electronics, or a total ban on electronic technologies, is short-sighted in that it does not reflect how Scouts are living their lives and tends to ignore the "elephant in the room". Where a policy is in place that bans the use of smartphones by Scouts makes it more likely these items will be used surreptitiously. Likewise, allowing only Scouters to use their smartphones is hypocritical because this policy does not allow their appropriate use by Scouts. This teaches exclusion instead of the Explain Demonstrate Guide and Enable method. The method explained by the Scouters is not the same as what is demonstrated to the Scouts. As my first District Executive put it "Scouting is all about the program." Without a good program, the Scout will 'vote with their feet' and move away from Scouting. A Scout makes a choice and puts forth the effort to attend meetings or go on a campout. Scouting, at the unit level, needs to deliver a program that is fun. Rules can never trump good judgment. Scouting needs rules to help support good judgment.

Transitioning a troop that bans the use of technology to one that allows the (limited) use of technology is extremely difficult. To accomplish this, the Scouters must be diligent in defining for the Scouts the circumstances in which technology should and should not be used. An example of this technology boundary is found in the new 2016 Boy Scout Second Class requirement 3d: "Demonstrate how to find directions during the day and at night without using a compass or an electronic device." Clearly this requirement is to be completed without the use of electronics (17).

In the short business article, *10 Truths We Forget Too Easily,* the topic "Change is Inevitable - Embrace It*"* is appropriate to this discussion.

"Only when you embrace change can you find the good in it. You need to have an open mind and open arms if you're going to recognize, and capitalize on, the opportunities that change creates.

You're bound to fail when you keep doing the same things you always have in the hope that ignoring change will make it go away" (18).

From the early days of my Scouting experience there were cassette recorders playing music of the era, in this case the band Kansas. Now there are smartphone, or wrist smartphones, that can do a number of tasks. Some of these tasks are good, some are bad, and some are how the person uses them. Change, and how the Scouters deal with these changes, will affect the Scouts. Scouters now have the additional challenge of developing not only a good citizen, but also developing a good cyber citizen. In developing Scouts to address this new frontier, Scouters will transition their Scouts from using iToys into using iTools.

REFERENCES

(1)   Scoutmaster Handbook, Manual 33009: The Boy Scouts of America, 1998.

(2)   E. Heise, "Traditional Scouting 101 – Introduction," 10 October 2014. (Online). Available: http://scoutingrediscovered.com/scoutcraft/traditional-scouting-101-introduction. (Accessed 20 December 2015).

(3)   Aaron Smith, "U.S. Smartphone Use in 2015," 1 April 2015. (Online). Available: http://www.pewinternet.org/2015/04/01/us-smartphone-use-in-2015/. (Accessed 20 September 2015).

(4)   P. Smetaniuk, "A preliminary investigation into the prevalence and prediction of problematic cell phone use," *Journal of Behavioral Addictions,* vol. 3, no. 1, p. 41–53, 2014.

(5)   The Senior Patrol Leader Handbook, Manual 32501: Boy Scouts of America, 2008.

(6)   The Boy Scout Handbook 6th Edition, New Brunswick, NJ: National Council Boy Scouts of America, 1959.

(7)   "Ethics Course Notes," Aiken, SC, 2014.

(8)   Human Performance Reference Manual Chapter 2, Atlanta, GA: Institute of Nuclear Power Operations, October 2006.

(9)   "Silver Bluff Cell Phone Policy," (Online). Available: http://silverbluffhs.acps.schoolfusion.us/modules/cms/pages.phtml?pageid=299754&sessionid=ebadf0b01e84c2c1dd956949dfa96d4c&sessionid=ebadf0b01e84c2c1dd956949dfa96d4c. (Accessed 27 December 2015).

(10)   "Announcing the new Cyber Chip," 2012. (Online). Available:
        http://www.scouting.org/filestore/youthprotection/pdf/100-053.pdf. (Accessed 20
        December 2015).

(11)   Guide to Safe Scouting Manual 34416, Boy Scouts of America, 2015.

(12)   G. Butler, "Smartphones in Scouting: A curse or a cure?," 4 April 2014. (Online).
        Available: http://blog.scoutingmagazine.org/2014/04/09/smartphones-in-scouting-a-
        curse-or-a-cure/. (Accessed 27 December 2015).

(13)   B. Wendell, "This troop's excellent technology policy is based on the Scout Law," 4
        May 2015. (Online). Available: http://blog.scoutingmagazine.org/2015/05/04/this-
        troops-excellent-technology-policy-is-based-on-the-scout-law/. (Accessed 8 January
        2016).

(14)   "Bear Attack," 20 December 2015. (Online). (Accessed December 2015).

(15)   The Boy Scout Handbook 12th Edition, Boy Scouts of America, 2010.

(16)   L. B.-P. o. Gilwell, "Scouting for Boys," 15 January 1908. (Online). Available:
        http://www.thedump.scoutscan.com/. (Accessed 27 December 2015).

(17)   Boy Scouts of America, "Boy Scout Rank Requirements 524-012," 2016. (Online).
        Available: http://www.scouting.org/filestore/boyscouts/pdf/524-
        012_BS_Requirements_Insert.pdf. (Accessed January 2016).

(18)   D. T. Bradberry, "10 Truths We Forget Too Easily," TalentSmart.com, (Online).
        Available: http://www.talentsmart.com/articles/10-Truths-We-Forget-Too-Easily-
        1712966151-p-1.html. (Accessed January 2016).

APPENDIX A -TROOP TECHNOLOGY POLICY EXAMPLE

This troop's excellent technology policy is based on the Scout Law (13)

Posted on May 4, 2015 by Bryan Wendell in Boy Scouting, Technology // 113

Comments

Figure 7 – Scouts Using Smartphones

Our youngest Boy Scouts were 3 years old when the first iPhone came out. They don't remember a world without iThings.

Troops that absolutely forbid smartphones in Scouting — even confiscating them or locking them away — are fighting a losing battle.

That's why units like Troop 96 of Grayslake, Ill., have developed a technology policy that's realistic and effective. Scoutmaster Pat Klemens shared his troop's policy with me and agreed to let me blog about it.

"In my mind, it's no use to debate it any longer," Klemens writes. "The devices are here to stay. I've had more than one Scout say that he wouldn't go to camp without his phone. I know a lot of adults who may not say it, but certainly respond the same way."

Klemens and his troop had an internal discussion about technology in Scouting about four years ago. They realized "there are an incredible number of logical comparisons between a pocketknife and a cellphone." Such as:

- Both are tools.

- Both could be toys.

- Both can be used recklessly.

- Both can hurt people.

- Both can be highly useful.

- Both require training for proper use.

- Both can, at times, scare people.

- Neither is going away.

"We don't ban knives, hand axes or gas lanterns," Klemens writes. "We teach their use. Similarly, we don't ban technology. We teach its use."

So Troop 96 came up with a technology policy that uses the familiar 12 points of the Scout Law. It's working. Since its implementation more than two years ago, "the problem simply doesn't exist anymore."

Troop 96 Technology Policy

General guidelines

1. Use the technology to build relationships with the troop, find useful information, communicate and share excitement about Scouting.

2. Updates to social sites using appropriate, (non--embarrassing), photos or clips can share and build excitement about Scouting.

3. Don't let technology detract from the outdoor experience, the program experience, or the Scouting experience for the troop or patrol.

Trustworthy

- A Scout is truthful with others online and is careful of the information shared.

- He does the right thing when sharing and makes sure to have permission to share the words or pictures of others.

Loyal

- A Scout uses his phone or device in a way that adds to his troop or patrol.

- A loyal Scout is careful to post only appropriate photos or clips and would never want to embarrass others with his updates or communication.

- A loyal Scout would not use a phone to exclude some Scouts from the conversation, for example with secret messages.

Helpful

- A Scout could use applications that can add to the outdoor experience, such as a star-map, first aid or GPS.

- A Scout should alert others to scams, cheats, and suspicious sites and point them to reliable sources of information. Encourage people to report bad online behavior.

- A Scout may use a phone to take appropriate photos of events or situations for the troop or for personal memories.

Friendly

- A Scout could use his phone to assist someone else with information or access to communication.

- A Scout could use his phone to invite others to join Scouting or to remind his fellow Scouts of important events and activities.

Courteous

- Ringers and alert messages should be muted — beeps, rings, and recorded music take away from the outdoor and Scout experience.

- A device should not be a distraction. Scouts should pay attention to the program and fellow Scouts. In a program or troop situation, a Scout should avoid checking his phone for incoming messages or emails, unless messages related to the program are expected. Consider using "airplane mode" and wait to check at designated free times.

- A courteous Scout does not interrupt a conversation with others to stop and check for inbound messages. The courteous Scout focuses his attention on his personal interactions, such as conversations in which he is engaged.

- A phone should not be used to insulate a Scout from the outdoors or others. For example, a Scout should not use headphones during a Scouting activity. During a Scout outing a phone should not be used for entertainment such as playing solo electronic games, idle web surfing, shopping, etc.

- A phone should not be used to play music or videos — for himself or for others — at an outdoor experience. Phone music at a campsite or campfire will take away from the outdoor experience for others.

Kind

- Not everyone can afford a smartphone. A Scout needs to be sensitive to others and avoid using his phone in a way that looks like boasting and makes other Scouts disappointed that they cannot afford such a device. This is no different from any other piece of gear.

- A Scout always treats people with respect while on social networks, playing games, talking, texting or in other digital activities.

Obedient

- When using digital devices, a Scout follows the rules and examples set by parents, guardians, teachers, and Scout leaders.

- A Scout abides by the rules on websites, services, devices and games.

- A Scout is aware that different settings, events or locations will have different rules for use of electronics.

Cheerful

- A Scout uses games, messaging tools and social forums to build relationships with others while having fun.

Thrifty

- A Scout recognizes that his phone may run out of power, and learns to take measures to conserve power in his device such as by turning it off when not in use or by switching to "airplane mode" to conserve his battery.

- A Scout should not become overly reliant on his device. For example, a Scout should be ready with his map and compass rather than rely on his smartphone GPS.

- A Scout is a smart consumer. He knows his voice, text, and data plans and uses them wisely, careful not to run up charges on apps and sites.

Brave

- The Scout should not normally be calling home, or sending text messages back and forth with home. If the Scout thinks there is an urgent need to contact home, he should consult an adult leader first.

- Parents need to understand and agree that they are normally not to send messages or call their Scout while he is out with the program. Communication from home should be routed through an adult leader.

- Stand up for what is right. Do not participate in mocking or bullying others, even if others are doing it. Report suspected abuse to a trusted adult, like a parent or leader or call 911 as appropriate.

Clean

- A Scout uses clean language and only discusses appropriate topics when using digital devices to communicate with others.

- A Scout needs to take responsibility and take care of his device against damage from dirt, drops, water or other hazards. He may want to keep it carefully packed away against damage. He keeps his gear in good, working order.

Reverent

- A Scout respects the feelings of other people and would never use digital devices to spread irreverent ideas.