

To the Seventh Generation: Inheritance and Legacy

HONORS PROGRAM GUIDE

January 1, 2020 – December 31, 2021



HONORS IN ACTION

The Phi Theta Kappa Experience:
Honoring Scholars, Building Leaders



PHI THETA KAPPA
HONOR SOCIETY

ABOUT PHI THETA KAPPA

Phi Theta Kappa is the premier honor society recognizing the academic achievement of college students and helping them to grow as scholars and leaders. The Society is made up of more than 3.5 million members and nearly 1,300 chapters in 11 nations.

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Phi Theta Kappa Honors in Action

OUR HONORS PROGRAM: *HONORS IN ACTION*

Phi Theta Kappa features a remarkable program called Honors in Action, designed to engage students in informed action meant to foster student success and help the organization fulfill its mission of providing college students opportunities to grow as scholars and leaders.

By engaging in the academic research process from the beginning, developing a research question, compiling the research, and presenting it to a wider audience via the Hallmark Award entry process, students gain valuable research and service learning experience. The students' engagement does not stop at academic research, as they will take the lessons learned from the research and analysis process and create an action-oriented project to provide tangible support within the issue area in their community.

Through these experiences, students will build both practical and academic skills. By working closely with their peers as well as campus and community leaders, students will learn not only how to research an issue, but how to utilize resources and build professional relationships.

HONORS IN ACTION LEARNING OUTCOMES

Participation in Honors in Action contributes to personal, academic, and career development. It affords students opportunities to have an impact on their campuses and in their communities by addressing challenges related to their Honors Study Topic research. Members who participate in the development and implementation of an Honors in Action project will be able to:

1. Create awareness of the importance of seeking out multiple perspectives to augment understanding of a real-world, complex, interdisciplinary topic and improve decision making,
2. Demonstrate analytical and critical thinking skills to draw research conclusions,
3. Initiate real-world problem-solving by developing an in-depth, action-oriented solution to make a difference for a challenge related to their Honors Study Topic research,
4. Plan and set goals for each step of the Honors in Action process,
5. Develop capacities to lead, manage, and motivate self and others, to perform in complicated environments and accomplish goals,
6. Collaborate and create effective teams to enhance project impact, and
7. Cultivate reflective skills and aptitudes to assess progress, adjust to circumstances, and measure results quantitatively and qualitatively.

Achievement of these learning outcomes builds the analytic and collaborative problem-solving and leadership skills necessary and valued in advanced academic pursuits, workplaces, and communities.

How to Use This Honors Program Guide

EXPLORE THE GUIDE TO GAIN AN UNDERSTANDING OF THE 2020/2021 HONORS STUDY TOPIC AND ITS THEMES (PAGES 5-21)

- Read the Honors Study Topic essay for an overview of the 2020/2021 topic.
- Check out the seven Honors Study Topic Themes for more detail about each theme.
- Read the overarching question located below the theme title to help guide your selection of an Honors Study Topic Theme.
- Read the introduction to the theme.
- Check out the sources in the “Discover More” Section.

READ AND ANALYZE THE HONORS IN ACTION PLANNING RUBRIC (PAGES 22-23)

- Look at the detail for each section of the rubric: Academic Investigation, Action (with collaboration), and Impact. The rubric will guide your HIA team to set research, action, and collaboration objectives. Be sure all elements of a strong HIA project are included in your planning and implementation.
- Remember, this is the same rubric that Hallmark Award judges use to score award entries when they are submitted.

EXAMINE HOW TO IDENTIFY AND ANALYZE ACADEMIC SOURCES (PAGES 24-26)

- Investigating academic sources related to the Honors Study Topic is the cornerstone of Honors in Action. Learn how to determine whether a source is academically credible.

DISCOVER HOW TO DEVELOP A RESEARCH QUESTION (PAGE 27)

- Once you select one of the seven Honors Study Topic Themes, your HIA team will develop a research question. Learn the steps to take to ensure that you have a robust question guiding your research.

LEARN HOW TO CREATE YOUR TEAM'S HIA JOURNAL (PAGES 27-28)

- Not sure how to create an effective HIA Journal? Explore the suggestions, including questions to ask yourselves, about how to create your team's journal.

CHECK OUT THE SAMPLE HIA PROJECT (PAGES 29-31)

- Members of the Honors Program Council have provided a sample HIA project based on the 2020/2021 Honors Study Topic.



HONORS IN ACTION

Honors in Action projects require substantive academic investigation of a theme related to the Society's current Honors Study Topic. The theme you select should be directly connected to and provide supporting evidence for the development of the action component of your project. Honors in Action projects require you to address a need in your community that was discovered through your research and analysis into the Society's current Honors Study Topic.



Assess teamwork and how members grew as scholars and leaders throughout the Honors in Action process.

ASSESS AND REFLECT

Reflect on and evaluate your academic research, action, and project collaboration.

STRATEGIZE AND LEAD

Consider how your research findings manifest locally, identify a real-world problem related to your academic research that requires action, and brainstorm possible solutions to the problem.



Reflect on and analyze your research to develop research conclusions.

Set action and collaboration objectives.



Identify collaborators on campus and in the community and execute the plan of action.

Develop a plan of action to address the local problem identified by Honors Study Topic research findings.



Investigate academic sources with varied viewpoints related to your research question.

Develop a research question to guide your Honors Study Topic investigation.



Set research objectives.



INVESTIGATE AND ANALYZE

Review the Honors Program Guide and develop research objectives to guide your in-depth academic research into a specific theme related to the current Honors Study Topic.

START HERE

Write, edit, and submit your team's Honors in Action Hallmark Award entry.

To the Seventh Generation: Inheritance and Legacy

By Susan Edwards

Associate Vice President, Honors Programming and Undergraduate Research, Phi Theta Kappa Honor Society

*There's a history through her
Sent to us as a gift from the future
To show us the proof
More than that, it's to dare us to move
And to open our eyes and to learn from the sky...
And live like we're still alive*

~ Sara Bareilles

What did we inherit from our ancestors, and what legacy can we leave for future generations? Sara Bareilles, in her 2013 song "Chasing the Sun," pondered life on a grand scale. Bareilles sang, "It's a really old city, stuck between the dead and the living, so I thought to myself sitting on a graveyard shelf, as the echo of heartbeats, from the ground below my feet, filled a cemetery in the center of Queens." She contemplated the names and dates of people buried there and concluded from the symphony of their heartbeats that life is meant to be meaningful. We can try our best. We can chase the sun. Our hopes, dreams, fears, and challenges are meaningful when placed in the context of our ancestors and descendants to the seventh generation and beyond. Like Bareilles, Amelia Earhart argued that we should chase our dreams. "The most difficult thing," Earhart said, "is the decision to act. The rest is merely tenacity."

Ojibwe culture is credited with the concept of thinking about decisions with the seventh generation in mind. The Ojibwe are part of the Haudenosaunee who believe they are connected to the first people who walked on Earth and to those people who are yet to be born. According to Rick Hill, Sr., Tuscarora of the Beaver clan and former Special Assistant to the Director of the Smithsonian's Museum of the American Indian, people living today are the bridge between ancestors and descendants. To Hill, "We inherit a duty, we inherit a responsibility...Don't just come here expecting to benefit. You come here to work hard so that the future can enjoy that benefit." To Oren Lyons, Onondaga Faithkeeper of the Turtle Clan of the Seneca Nations, it is vital to think about people beyond your generation so that they can enjoy the culture, way of life, and preservation of the land your generation inherited.

In a 2006 interview with the Public Broadcasting System's Christine Turner, Bill Moyers discussed his play, *The Seven*, an adaptation of Aeschylus' tragedy, *Seven Against Thebes* (476 B.C.E.). Both plays explored the idea that generations have questioned whether they control their destinies or

whether destiny is out of their control. Moyers argued that every generation has grappled with what they inherit from their ancestors and what they will leave behind. He told Turner that he had come to the conclusion that his legacy would be love – that he tried to make decisions based on love, rather than on fear.

Columnist Charles Blow wrote about legacy and children in a 2019 *New York Times* piece. We strive, Blow contended, to teach children "how honor and integrity are constructed, maintained, and defended. We want to raise good people and good citizens, people who respect society and follow the rules, though not blindly. We want them to question the world, and if they identify injustice, work to eliminate it." When the United States Women's Soccer Team won the 2019 World Cup, the Nike Corporation released a television commercial with a powerful message about legacy. In it, the narrator expressed the hope that, "a whole generation of girls and boys will go out and play and say things like, 'I want to be like Megan Rapinoe when I grow up,' and they'll be inspired to talk and win and stand up for themselves." How do we raise children who thrive and who understand their connection to ancestors and responsibilities to generations that follow them?

Humans have long been interested in their place in the universe, but perceptions have fluctuated over time as scientists built on legacies left by scholars who came before them. Ancient and Medieval peoples sought ways to explain the cosmos and believed it was ruled by supernatural beings, the Earth was flat, and planets revolved around the Earth. As scientific astronomy developed, so did new understandings of the cosmos. Two comets helped advance what humans understood about natural and constructed environments. In 1543, Nicolaus Copernicus determined that the Sun, not Earth, was at the center of the universe. He believed that the universe was composed of crystalline spheres, and scientists who followed Copernicus found his arguments compelling. In Denmark, Tycho Brahe thought that knowledge of how the cosmos worked could help predict events on Earth. As the king's astrologer, Brahe was given one percent of Denmark's budget to create the world's best observatory. When in 1577, a great comet passed close to Earth for two months and was seen around the world, Brahe tracked its trajectory through the orbit of Venus. Brahe noted that crystalline spheres should have stopped the comet. Logically, then, the spheres did not exist.

Johannes Kepler, a German scientist who worked in Prague and who also witnessed the 1577 comet, argued that religious and ancient ideas about the cosmos should be discarded. Empirical observation, he believed, should be the basis for understanding science. Kepler recalculated Brahe's precise calculations to determine that planets moved in ellipses, rather than circles. Working in 17th-Century England, Isaac Newton added that studying the universe in a holistic way would help science reveal God's master plan. Another comet, this one in 1680, would be seen during the day and reappeared in 1681. Newton concluded that gravity surrounding the Sun had caused the comet to travel in an elliptical motion and that gravity was the glue that held the universe together. The work done by Copernicus, Brahe, Kepler, and Newton laid groundwork for siblings Caroline Herschel and William Herschel to build powerful telescopes in the 18th Century, Albert Einstein's Theory of Relativity, Georges Lemaître's recalculation of Einstein's theory to show the universe was expanding, and Edwin Hubble's 100-inch telescope. Their work has, in turn, led to the development of the Extremely Large Telescope (ELT). The ELT is under construction in Chile's Atacama Desert and will allow 13 times more light than older telescopes (100 million times more light than human eyes can naturally see).

Dr. Alexandra Amon, astrophysicist and observational cosmologist at Stanford University, has said that we know only five percent of the observable universe. Continuing to measure what is going on in the universe is the only way to understand the cosmos and how it relates to the human experience. The legacies of these scientists and artisans will inspire 21st-Century explorers and innovators as they examine more than 100 billion galaxies currently known to exist.

Singers, songwriters, and business people have explored the building blocks of human experience through country music stories. The country music industry annually pulls in more than two billion dollars and accounts for nearly 35 percent of the recorded music industry's revenue in the United States. Its popularity is global. There are Hank Williams cover bands in Spain, saddle-topped barstools in the Czech Republic, and line dancing halls in Argentina. In Iran, the Dream Rovers, Shahryar Masrou, and Thunder are melding American country music with traditional Iranian tunes. Filmmaker Ken Burns studied the history of country music for his 2019 documentary series and found that the industry had created a unique relationship with fans. The Carters, considered the first family of country music whose legacy is considered the foundation for the rest of country music's artists, initially stayed in fans' homes to save money when they

toured. Stars like Dolly Parton, Charley Pride, Garth Brooks, Keith Urban, and Blake Shelton, who followed the Carters, regularly participated in fanfests, spending hours signing autographs and posing for photographs that helped them connect with the people who listened to and purchased their music. Ernest Tubb, another of the pioneers of country music, known as the "Texas Troubadour," explained, "We built this industry one handshake at a time."

Burns found that country had its roots in many music traditions, blues, jazz, hillbilly, as well as the United States immigrant experience. Singer-songwriter Rhiannon Giddens' influences included strong women like Reba McEntire, Mary Chapin Carpenter, and Kathy Mattea who continued the legacy of strong female stars set by Sara and Maybelle Carter. Giddens appreciated that, "Jazz emphasizes this, blues emphasizes this, country emphasizes this, but they are all part of the American music pot. It's America, but it's got Africa in it." Songwriter Harlan Howard, who wrote more than 4,000 songs and who was called "the Dean of Nashville songwriters" by *Rolling Stone*, explained in song the appeal of country music. It is "Three Chords and the Truth."

Thirteenth-Century theologian Thomas Aquinas synthesized the philosophy of Aristotle with the teachings of the Roman Catholic Church and saw reason and revelation as complementary means of knowing truth. Aquinas realized the value in listening to expressions of truth articulated by all people. He believed, "We must love them both, those whose opinions we share and those whose opinions we reject, for both have labored in the search for truth, and both have helped in finding it." To what extent is honoring others' opinions still desirable and possible in a seemingly polarized, post-truth world? What legacies do we build when we search for and express truth?



Harriet Tubman had a vision for her life based on the truth that, as journalist Sheryl WuDunn has argued, the greatest injustice of the 19th Century was slavery. Tubman said, "Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world." Tubman's truth was expressed through her active resistance to the institution of slavery. James Baldwin who wrote about the legacy of slavery and the human condition, expressed his truth, "It took many years of vomiting up all the filth I had been taught about myself, and half-way believed, before I was able to walk on the earth as though I had a right to be here." He left a legacy of resistance, great literature, and inspiring words for people like Billy Porter, who paraphrased Baldwin in his acceptance speech when, in 2019, Porter became the first openly gay man to win an Emmy Award for Best Actor in a Drama Series.

Duchess Harris, alumna of the Mellon Mays Undergraduate Fellowship Program and Professor and Chair of the American Studies Department at Macalester College, wanted people to think about inheritance and legacy. Her interest in inheritance and legacy was the impetus to explore her grandmother's history as one of NASA's earliest female mathematicians. Miriam Mann worked on the Friendship 7 project, and Harris created her "Human Computers at NASA" digital archives project to highlight the work and heritage of women like Mann.

Along with the global legacy of slavery, WuDunn argues that the greatest injustice for the 21st Century is global gender inequality. She has argued that in the West, there are more women than men because women have access to food and health care.

As a result, they live longer than did their ancestors. Demographers have determined, though, that there are between 60 million and 100 million

missing females in the rest of the global population. WuDunn explained that there are several reasons for having fewer women worldwide. Over the past 50 years, more girls were "discriminated to death" than all people killed in 20th-Century wars. Advancements in sonograms have meant rises in the number of abortions of female fetuses in resource-scarce areas of the world. And, after the first year of life when most children worldwide breastfeed, girls are fed less food and more often than boys die of starvation. Education and economic opportunity for females, WuDunn argued, is key to fighting overpopulation and pervasive poverty and leaving a legacy for future generations.

In Amor Towles' *A Gentleman in Moscow* (2016), the character Richard Vanderwhile mused, "I guess the point I'm trying to make is that as a species we're just no good at writing obituaries. We don't know how a man or his achievements will be perceived three generations from now, any more than we know what his great-great-grandchildren will be having for breakfast on a Thursday in March. Because when Fate hands something down to posterity, it does so behind its back." While we may not know how our achievements will be perceived generations from now, we can, to quote Sara Bareilles, "chase the sun" and do our best to learn from the past, to make life meaningful, to take responsibility for our actions, to be tenacious in our efforts, and to leave the best possible legacy to the seventh generation. *Aandi ezhaayan?* (Where are you going?)



THEME 1

The Heirs of Our Ways

How do we acknowledge our inheritance and support children in ways that promote humanity's greatest potential?

By Dr. Patricia D. Hall

Honors Program Council, Phi Theta Kappa Honor Society

The United Nations Educational, Science, and Cultural Organization (UNESCO) in *The Convention on the Rights of the Child* (1995) proposed a world in which “each child ... should grow up in a family environment, an atmosphere of happiness, love and understanding,” and they “should be fully prepared to live an individual life in society ... brought up in the spirit of peace, dignity, tolerance, freedom, equality, and solidarity.” UNESCO’s proposed world contrasts with that of detained migrant children on the United States-Mexico border, sex workers in India, child waste pickers worldwide, and children with lead-based brain damage in Flint, Michigan.

Current science corroborates the UNESCO vision: children thrive in loving, long-term, reciprocal relationships with family, caregivers, teachers, and peers. At birth, the human brain is 25 percent of its adult size, and it grows to 85 percent by age three. The *corpus callosum* achieves its maturity in a person’s mid-twenties. For children to grow optimally, they need access to challenging and safe experiences in stable communities as well as access to education, healthy food, air, and water. If all goes well, children become self-motivated, happy, productive members of their communities.

Clarkson, Morrisette and Régallet (1992) note that traditional indigenous cultures view the rights of the child differently from prevailing western cultures. Their beliefs emphasize that the survival of the group is tantamount, and that everyone has a unique contribution to make to society. While indigenous cultures recognize children have unique needs for protection and support, children are incorporated into collective work as their skills and abilities grow. By contrast, western cultures emphasize the satisfaction of material wants, and that stress on material wants may have led to increasingly consumer-oriented societies. In the West, nuclear families are the norm, and day-to-day life includes measures of competition for scarce resources among and within family units. With the mechanisms of the state and the market geared toward production and accumulation, according to Clarkson, Morrisette, and Régallet, the fulfillment of individual

needs is the measure of success. As the global population adopts this western definition of success, a variety of implications for childhood have emerged.

Census data from *The Opportunity Atlas* shows that where children are born makes a difference in their lives. Zip codes establish a geofence that identifies socioeconomic status and creates a predictor of major life outcomes. Projected lifespan, income, incarceration rate, and college graduation can all be affected. Infant mortality for non-Hispanic Blacks in the United States, for example, is on par with conflict zones in Syria and the West Bank. For a variety of reasons, child and adolescent mental illness, along with suicide rates, is increasing. With urbanization and regional mobility, infants and children experience institutional care outside the home in a consumer-funded system that emphasizes access over quality.

The capacity for us to improve major life outcomes for children is strong. Industrialized countries, including Sweden and New Zealand, have invested in community-supported early education and family programs. Genetic modification promises the potential to eliminate common childhood diseases. Technology in education allows individualization that supports creativity and innovation. Teens, like Swedish environmental activist Greta Thunberg, and Parkland High School gun control activist David Hogg, have high levels of resilience and continue to thrive in the face of adversity. “Dreamers” show the grit necessary to navigate the immigration system that also serves them well in education systems and workplaces.

From ancestors we have inherited wisdom and problems to solve before they are passed to our children and future generations. We can learn by listening to lessons shared by experts in neuroscience, child development, cultural anthropology, technology, and trauma-informed family support systems to create healthy communities in which children thrive. What legacy will we leave children? How can we ensure our legacy creates opportunities for all our children to flourish in ways that allow them to leave a brilliant legacy for the seventh generation?



Discover More

Aldy, J. E. (2016). Mobilizing political action on behalf of future generations. *The future of children*, 26(1), 157-178. Retrieved from <http://www.jstor.org/stable/43755235>

Aldy analyzed current efforts to fight climate change at a national and global level, and how our failure to mobilize sufficient effort will affect future generations. He suggested linking climate change with other issues that affect children to potentially diminish political opposition.

Copeland, W. E., Shanahan, L., Hinesley, J., Chan, R. F., Alberg, K. A., Fairbank, J. A., van den Oord, E. J. C. G. & Costello, E. J. (2018, November 9). Association of childhood trauma exposure with adult psychiatric disorders and functional outcomes. *JAMA Network Open* (7), 1-11. Retrieved from <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2713038>

Copeland and his colleagues shared highlights of their longitudinal study about the lifelong consequences of childhood trauma.

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 40(3), 291-309. Retrieved from https://www.researchgate.net/publication/285681149_Teacher_education_around_the_world_What_can_we_learn_from_international_practice

Darling-Hammond surveyed varied global education movements to find practices that can be used to best educate children to thrive in the world.

Gopnik, A. (2009). *The philosophical baby: What children's minds tell us about truth, love, and the meaning of life*. New York, NY: Farrar, Straus and Giroux.

Gopnik explained the cutting-edge scientific and psychological, neuroscientific, and philosophical research that has revealed that babies learn more, create more, care more, and experience more than we could ever have imagined.

Lally, R. (2013). *For our babies: Ending the invisible neglect of America's infants*. New York, NY: Teacher's College Press, Columbia University.

Lally examined the needs of babies and their families and the effects of U.S. policies on children's brains, behavior, and learning capacities.



THEME 2

Natural and Constructed Environments

To what extent are natural and constructed environments fluctuating, and how can we intentionally interact with them to affect our legacy?

By Dr. Mitch Stimers

Honors Program Council, Phi Theta Kappa Honor Society

A natural environment, constructed without human assistance, has always surrounded us. Only in recent history have we significantly modified this global space through technological advancements, altering one environment to create the other. Now, whether in symphony or cacophony, both natural and modified environments are entangled with the whole of life. Fluctuations in systems are not the exception but the rule. The second law of thermodynamics, for example, describes how the propensity of a physical system to break down is inevitable. Change, then, is inevitable. This law, when read as a general narrative on change rather than as a specific description of the proclivities of heat and energy, informs us that no system is immune to perturbations. Yet, it is future generations who will realize the legacy of today's exchanges with natural and constructed environments, just as we have inherited the consequences of past decisions and actions.

Conversion of natural landscapes into dense and impermeable urban complexes, and the ever-expanding need to convert forests and grasslands to productive agricultural fields, continues to amend life and its agencies and operations across the lithosphere, hydrosphere, and atmosphere. The loss of arable land to erosion and pollution poses a looming threat to the ability to produce food. Simultaneously, food waste, caused by consumption and distribution issues, is also a concern. There is, as well, increased magnitude, frequency, and intensity of some slow- and rapid-onset natural disaster types. Destructive interaction between the natural and human-constructed harbors the potential to affect millions more people annually than people and animals historically have experienced. Climate and environmental change is altering the world, our perceptions of it, our place in it, and perhaps geologic time itself – welcome to the Anthropocene.

Artificial intelligence (AI) is radically and rapidly altering how even one generation ahead of us will interact with machines and global digital networks. In 2017, Google's AlphaZero AI was trained in chess for nine hours, having been programmed with only the rules of the game. All strategy was learned by the AI. AlphaZero went on to outperform the Stockfish 8 chess program, the best non-AI chess engine in the world at the time. In a span of time roughly matching a standard workday, a machine learned and mastered one of our most complex games.

According to historian and futurist Yuval Harari, the potential death of liberalism; a range of philosophical visions about liberty, consent of the governed, and social justice that Harari sees as the last "human story," might leave our political and social systems in a state of disarray. If that happens, we will require an entirely new story to help us understand our world. Recent movements of nationalism by some of the largest and most economically important countries are challenging the ways in which citizens, both internally and externally, will interact with others, as well as the natural environment, for decades.

Our alterations of natural environments and the expansion of built environments stemming from actions just two or three generations past are now coming into view. Systems we have built to support life, society, and economies are shifting daily. Eminent scientist James Lovelock's *Gaia* hypothesis portends that we are part of one global organism, and understanding both natural and constructed environments, and our relationship to them, is vital should we wish to continue this story to the seventh generation.

Discover More

Benyus, J. M. (1997). *Biomimicry: Innovation inspired by nature*. New York, NY: William Morris.

Benyus investigated what she considered nature's best ideas, such as spider silk and prairie grass, to determine how humans can be inspired to adapt and innovate in ways that support their survival.

Diamond, J. (2011). *Collapse: How societies choose to fail or succeed*: (2nd ed.). New York, NY: Penguin Group.

Diamond explored the downfall of some of the world's great civilizations, the characteristics of their natural and constructed environments, and the choices they made that led to their downfalls and legacies for future generations.

Goodell, J. (2017). *The water will come: Rising seas, sinking cities, and the remaking of the civilized world*. New York, NY: Little Brown.

Goodell combined anecdotes with expert analysis from around the globe to consider the effects of environmental change on natural and constructed environments today and for future generations.

Lovelock, J. (2016). *A rough ride to the future*. New York, NY: Harry N. Abrams.

Lovelock explored the idea that climate change may not be caused by greedy and destructive humans but, instead, it is the result of the constructive chaos of changing constructed environments.

Quinn, D. (1995). *Ishmael: A Novel*. New York, NY: Bantam.

Quinn constructed a fictional world in which the gorilla Ishmael teaches the narrator of the novel about humans' place in the world.

Ripple, W. J., Wolf, C., Newsome, T. M., Galetti, M., Alamgir, M., Crist, E., Mahmoud, M. I., & Laurance, W. F. (2017). World scientists' warning to humanity: A second notice. *BioScience*, 67(12), 1026–1028. Retrieved from <https://academic.oup.com/bioscience/article/67/12/1026/4605229>

The authors updated the warning to humanity written more than 25 years ago by the Union of Concerned Scientists and signed onto by more than 1,700 independent scientists, including many Nobel Laureates. They argued we have a responsibility to serve as stewards of the Earth for future generations.



THEME 3

Trade, Craftsmanship, and Industry

How have inherited practices of trade, craftsmanship, and industry shaped our world, and what legacies will we inspire?

By Prof. Steven J. Fritts

Honors Program Council, Phi Theta Kappa Honor Society

Our world is a global marketplace where goods and services are bartered, bought, sold, and traded. Exchanges occur between friends and strangers, in souks and contemporary open-air malls, across borders, and on global computer networks. What vestiges of trade, crafts, and industry remain that our ancestors would recognize? To what extent has quality craftsmanship remained a constant from one generation to the next? As society progresses and needs grow, how do artisans and craftspeople respond? To what degree is industry connected to and still primarily driven by craftsmanship? To what extent has efficiency become the goal of the contemporary world? How can craftsmanship and efficiency work in tandem to produce quality products and a thriving global economy? Answers to these questions help us consider practices we have inherited and how they have shaped our world, as well as the legacies we will leave to future generations.

Since they lacked many natural resources, Ancient civilizations used the Tigris, Euphrates, Nile, Indus, and Yellow Rivers to practice bartering and develop trade routes to gain items they needed to sustain their society. After 1,000 B.C.E., Mesopotamians used camels to trade over land. From the 1st Century B.C.E. to the 13th Century, the Silk Road connected China to the Roman Empire. That connection helped spread knowledge, technology, religion, the arts, and, unfortunately, the Black Death throughout the world. Pathways such as the Spice Route and the Via Salaria also helped global culture and trade spread. Today, digitally-monitored land and sea routes produce data to improve the efficiency and speed with which nations and companies can trade with one another. Data itself, along with stocks, bonds, cryptocurrency, even professional sports draft processes, have become tradable commodities. The evolution of trade is coupled with a return to bartering through sites like eBay, Craigslist, BabysitterExchange, and SwapThing.

Throughout history, artisans' works of mastery, more masterpieces of the soul than simply works, reflect centuries of tradition as well as impetus for trade. We see craftsmanship in the fragrance houses of France

established by Marie Antoinette. When he bought the House of Lubin, Gilles Thevenin found a vial of and recipe for the last perfume worn by the French queen before she faced the guillotine. Marie Antoinette's legacy can be seen as well in haute couture in the queen's *Marchande du Mode*, Marie-Jeanne "Rose" Bertain, whose vision of haute couture for her more than 1,500 wealthy clients created international fashion trends. The skill of Goorin Brothers milliners, the artistry of meat cutters, and the mastery of craft brewers have left legacies of beauty and excellence. Craftsmanship can be found, too, in the simplicity of a computer program, the complexity of a cathedral, and the beauty of a bespoke suit. Mastery of crafts is exhibited as well in the detail of cobblers' work, the creativity of graphic novels, and the grace of professional athletes. Craftspeople have left legacies that have inspired generations. Are the care and artistry with which they have operated being lost to automation and a contemporary desire for efficiency, low cost, and mass production? What effects has the rise of industry had on craftsmanship?

Industry and manufacturing were born of necessity and ingenuity. Demands for mass-produced, affordable products grew. Industry rose to meet the needs of consumers. The rise of power and transportation industries, for instance, fueled the economy. New trade routes were developed with the advent of railroads, aviation, and over-the-road trucking. However, creating railroad engines, tracks on which trains could run, and towns along routes led to the loss of 6,600,000 trees by 1890 which, in turn, affected the lives of millions in both positive and negative ways. Economies flourished and markets rose and fell. Understanding the legacies of trade, craftsmanship, and industry allows us to consider their impact on future generations. Are we experiencing a new industrial revolution? How will trade through hyperloops, space travel, and new disciplines of craftsmanship and industry shape the future and affect our legacies?

Discover More

Lacroix, C., Tétart-Vittu, F., Trubert-Tollu, C., Martin-Hattemberg, J., & Olivieri, F. (2017). *The House of Worth: 1858 - 1954: The birth of haute couture*. London, England: Thames and Hudson.

The House of Worth is a detailed examination of the birth and evolution of high fashion from the era of Marie Antoinette to the mid-20th Century.

Liu, X. & Shaffer, L. N. (2007). *Connections across Eurasia: Transportation, communication, and cultural exchange on the Silk Roads*. New York, NY: McGraw Hill.

Liu and Shaffer examined the history of the Silk Roads trading routes and their impact on the lands, communications, religions, arts, and economies of people who lived along the routes.

Morris, C. R. (2012). *The dawn of innovation: The first American Industrial Revolution*. New York, NY: PublicAffairs.

Morris presented a detailed history of the first American Industrial Revolution and its impact on trade, the economy, and living conditions for people affected by its reach.

McKibben, B. (2006). *The age of missing information* (reprint ed.). New York, NY: Random House.

McKibben explored the assumption that, with the vast amount of information that is bombarding us with the advent of technology, we are better informed than past generations.



THEME 4

Expressions of Truth

In what ways do inherited expressions of truth build lasting legacies?

By Prof. Cassandra Powell and Dr. Terri Ruckel

Honors Program Council, Phi Theta Kappa Honor Society

Roman mythology locates *Veritas* (Truth), the daughter of *Chronos* (Time), at the bottom of a dark, deep well, usually clothed in a virginal white gown but now and then wearing nothing at all. In other words, Truth is seldom naked, usually out of reach, and always the daughter of time.

In one of Aesop's *Fables*, a man journeying through the wilderness encounters the goddess of truth and questions why she lives so far from the cities. She replies, "Among the people of old, lies were found among only a few, but now they have spread throughout all of human society!" Do "the city" and "modernity" send the truth into exile, so much so that the traveler encounters truth only by accident?

In a world of "alternative facts," Orwell's *1984*, and ever-changing revisionist stories, how do these ancient tales confirm or confront understandings of present-day expressions of "truth"? What compelling stories are we telling? What do they owe to the past, and how will they leave something of value upon which future generations could build?

History is replete with expressions of truth we have inherited. In 213 B.C.E., Emperor Qin Shi Huang ordered *fenshu kengru*, the burning of the Confucian scholars' books, in order to legitimize his mandate to obliterate the works of people with whom he did not agree. That behavior sealed his legacy of destruction. Qin was also said to have scholars buried alive, though new evidence suggests that charge may be apocryphal. Copernicus discovered the truth about the solar system but feared publishing it during his lifetime. In 1521, the Diet of Worms convened to determine the fate of Martin Luther. Luther warned that it was unsafe to go against one's conscience. His truth led to his condemnation as an outlaw. Thomas Jefferson based his ideas about self-

evident truths, such as the right to pursue happiness, from John Locke's trilogy of rights: life, liberty, and property. Abigail Adams pressed her husband as he and fellow Congressmen considered the extension of rights in the United States to be more generous than their ancestors had been to women.

At great personal risk, Harriet Ann Jacobs left us her memoir, *Incidents in the Life of a Slave Girl*. How have authors such as Maryse Condé, Alice Walker, and Toni Morrison been enriched by Jacobs' legacy? How have they taken that inheritance and left a legacy for generations of writers who will follow them?

Not all truths have been expressed in written form. Protestors in Tiananmen Square and the photographers who captured their non-violent acts inspired the world. Neil Armstrong's "giant leap for mankind" supported the contemporary truth that innovation and progress can help humans achieve seemingly impossible tasks. The activist Banksy expresses his truth through his distinctive art meant to "snatch away" power from well-equipped enemies. Banksy's work has satirized oppression in Palestine, hypocrisy in politics, and capitalistic greed in England. The late Tupac Shakur expressed his truth through song, and his work continues to outsell other artists in his music genre.

In what ways do constructed "divides" such as rural-urban, past-present, female-male, gay-straight affect our loyalties and influence our perceptions of others' expressions of truth? How much—and what—do we owe to those who have gone before us? What do we owe to the future? How best can we impart lasting legacies through our own expressions of truth?

Discover More

Adichie, C. N. (2009, Oct.). The danger of a single story [Video file]. Retrieved from https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story

Adichie defined a “single story” as a single data point of information that distorts understanding of cultures, people, or history. She called for people to embrace multiple perspectives so as to avoid being trapped in cognitive distortions.

Austin, J. L. (1975). *How to do things with words*. Cambridge, MA: Harvard University Press.

Originally a series of talks, Austin’s seminal work developed what is now known as speech act theory.

Ayunerak, P., Alstrom, D., Moses, C., James, Sr., C., & Rasmus, S. M. (2014). Yup’ik culture and context in southwest Alaska: Community member perspectives of tradition, social change, and prevention. *American Journal of Community Psychology*, 54(1-2), 91-99. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4119478/>

The authors presented an ethnographic account of Alaskan Yup’ik communities, illustrating how people in indigenous communities have reacted to the transformation of their language ecology in the tide of global language endangerment.

Baldwin, J. (Ed.). (2018). *Navigating post truth and alternative facts: Religion and science as political theology*. Lanham, MD: Rowman & Littlefield.

Baldwin edited a series of essays by scholars whose work investigated how science, religion, and political theory intersect and influence each other.

Brooks, D. (2015). *The road to character*. New York, NY: Thorndike Press.

Brooks examined how people across the globe develop character beyond individual success.

Sheen, N., Smith, H., Kenworthy, E. W., & Butterfield, F. (2017). *The Pentagon Papers: The secret history of the Vietnam war*. New York, NY: Racehorse.

The Pentagon Papers, a report issued by David Ellsberg in 1971 on the role of the U.S. government in the Vietnam War, proved that the U.S. government lied to the public about the nature and scope of the Vietnam conflict. The authors placed the deception within the tradition of political environments. The Papers are now declassified and available to the public.



THEME 5

Resistance – Reform, Rebellion, Revolution

What have we learned from the inherited effects of resistance, and what legacies can we envision?

By Prof. Rahul Kane

Honors Program Council, Phi Theta Kappa Honor Society

Reverence to the past is important and so is the regard for the future. Resistance is an oppositional act. The practice of resistance is as intersectional as are the powers against which resistance is mounted. Both in the past and in the present, the dynamic nature of resistance comes from the actors, situations, and from the forms resistance takes.

Resistance can be social, political, or economic – and sometimes all three. It can be violent or non-violent. Non-violent protest by Mahatma Gandhi, for example, led to freedom of India from the British. Resistance by Rosa Parks in Montgomery, Alabama, led to desegregation, and resistance led by Nelson Mandela ended apartheid. Gandhi, Parks, and Mandela had examples of effective resistance from leaders who came before them. Thoreau's philosophy influenced Gandhi, Harriet Tubman inspired Parks, and Gandhi and Dr. Martin Luther King, Jr. motivated Mandela. Gandhi, Parks, and Mandela inspired activists who came after them. Wael Ghonim helped jumpstart the 2011 Egyptian revolution using social media platforms. Cardiothoracic surgeon turned satirical comedian, Dr. Bassem Youssef, used the power of social and traditional media to give international exposure to the same revolution. Sir Isaac Newton is quoted as saying that if he had seen further than other men, it was "by standing on the shoulders of giants." Acts of resistance and courage by young people such as Swedish climate activist Greta Thunberg and Pakistani women's rights in education activist and Nobel Laureate Malala Yousafzai stand on the shoulders of Ghonim and Youssef and others who came before them.

Non-violent direct action has played a major role in global resistance, and artists have been part of that tradition. From Bankim Chandra Chatterji's "Vande Mataram" (1882) to Gil Scott-Heron's "The Revolution Will Not Be Televised," (1970), songs and poetry have historically supported and fueled revolution and, in turn, inspired future generations of artists. Banksy shredded his art as an act of rebellion against the concept of art as a

commodity. Slogans such as #MeToo and "reclaiming my time" represent contemporary tools of resistance that can unite people who otherwise do not know one another or those who feel disconnected in 21st-Century social media culture. Social media itself, when used as propaganda, can impact people connecting with one another in righteous protest, but it can also be used to convince people to follow ignoble instincts.

Revolutions have the potential to change the course of history. While they can be non-violent, revolutions have often stemmed from or engendered violence. In 1969, the spontaneous and violent demonstration of the Stonewall rebellion led to LGBTQ liberation and Pride celebrations of today. Twenty years after Stonewall, the "tank man" of Tiananmen square led to the June Fourth incident in which student protesters took to the streets of Beijing, and the government, in response, declared martial law.

Scientific revolutions can originate, too, with a single person or group of people whose findings are groundbreaking. The move from Newtonian physics to quantum physics opened doors to research in energy, computing, and medicine. Revolutions can have unintended consequences, because, to paraphrase economists James D. Gwartney and Richard J. Stroup, all important decisions are made with insufficient information. The move from Newtonian physics to quantum physics, for instance, also led to the atomic bomb. The discovery of dichloro-diphenyl-trichloroethane (DDT), while hailed as a revolution in agricultural application and safety, turned out to be a disaster that has had a devastating environmental impact. Rachel Carson's 1962 book *Silent Spring* warned about the effects of DDT on the environment and helped set the stage for the 21st-Century environmental revolution. Farmers across the globe who are dealing with environmental changes can learn from the Third Agricultural Revolution and from Carson's warnings to ensure future food security.



Discover More

Berberoglu, B. (Ed.). (2018). *The Palgrave handbook of social movements, revolution, and social transformation*. London, England: Palgrave McMillan.

This handbook included global case studies to investigate varied social movements that have led to revolutions. Authors discussed the origins, existences, and challenges of revolutionary movements.

Carson, R., Darling, L., Darling, L. (2002). *Silent spring* (anniversary ed.). Cambridge, MA: Houghton Mifflin Company.

Carson illustrated the dangers of commonly used chemicals that were destroying the delicate environmental balance. She argued that the indiscriminate use of dangerous household chemicals can have extensive, long-lasting, damaging impact on the environment.

Cipresso, P., Giglioli, I., Raya, M. A., & Riva, G. (2018). The past, present, and future of virtual and augmented reality research: A network and cluster analysis of the literature. *Frontiers in Psychology*, 9, 2086. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6232426/>

This article explored the global development of the concept, applications, and costs of artificial intelligence, virtual reality, and augmented reality as well as technological revolutions in healthcare, entertainment, defense, and education.

Faris, D. (2014). *Dissent and revolution in a digital age: Social media, blogging and activism in Egypt*. London, England: I.B. Taurus.

Faris documented digital events that led to and sustained the Arab uprisings in Egypt and Tunisia. He discussed how older methods of digital activism, such as blogging, created and sustained a social awareness that provided the path for a larger social media-based revolution that ultimately toppled governments in Tunisia and Egypt.



THEME 6

Perceptions of Progress

How do inherited understandings of progress guide the future?

By Prof. Lara Roemer

Honors Program Council, Phi Theta Kappa Honor Society

According to author and management consultant Margaret J. Wheatley, “Without reflection, we go blindly on our way, creating more unintended consequences, and failing to achieve anything useful.” Thus, we discover the paradox of progress: “progress” is defined as forward or ongoing movement toward a destination. What happens, however, when that destination is unclear or when the path deviates from its original route?

The ways in which we understand development can shape our interaction with the larger world. While many changes are viewed positively and embraced by large sections of the global population, developments always create ripple effects that may be difficult to predict.

Leo Baekeland’s development of a synthetic-based plastic in 1907 led to the eventual creation of thousands of new products. When Baekeland and his counterparts invented their material, they could not have envisioned the tons of plastic waste that would one day litter the world’s oceans and beaches. Nor could they have foreseen the international political ramifications that would result from that waste. Today, the United States and western European countries face backlash from Asian nations to whom they export tons of plastic-based trash. As a result, Thailand, Vietnam, and Malaysia have all introduced laws that ban foreign nations from sending trash to their countries.

Another example of unintended consequences of scientific progress involved Nobel Laureate Sir Alexander Fleming. He first discovered penicillin in 1928 and published his findings to the scientific community with the assumption that its usage would be very limited. It wasn’t until a team of researchers in England attempted to find a more practical use for the drug in 1939 that the true potential of penicillin was unlocked, sparking the beginning of a revolution in the treatment of common illnesses using antibiotic therapies. The developments that resulted from Fleming’s initial discovery saved

countless lives upon their deployment in World War II and in subsequent decades. This medical progress was overwhelmingly positive; yet because of over prescription and misuse of these inherited developments, antimicrobial resistant bugs, or superbugs, have been created. Both Baekeland’s and Fleming’s discoveries demonstrate an initial positive change that was embraced by the global community, but each of these instances demonstrate the need for more progress to remedy the unintended consequences.

We should also consider as we examine perceptions of progress across generations that one person’s definition of progress may differ from another’s. While much of the world has embraced the rapid and ever-changing nature of technological development, widely seen as being positive and progressive, some communities have resisted. Across the world, groups like the Amish and the Mennonites have chosen to slowly and selectively bring technology into their communities. Some groups, like Congo’s Mbuti tribe, have even chosen to reject all modern forms of technology.

Based on our shared inheritance of the results of progress, we can examine the potential legacies we will leave for future generations through our own perceptions of progress. When millions of African citizens have access to cell phones but not clean water or food, what are the actual effects of progress?

If you could see the long-term effects of projects on which you work, and some of those effects were negative, would you continue your work?



Discover More

Chua, A. (2004). *World on fire: How exporting free market democracy spreads ethnic hatred and global instability*. New York, NY: Anchor.

Chua examined the consensus that free markets and democracy would transform the developing world and found, instead, that they fueled ethnic violence.

Coccia, M. & Bellitto, M. (2018). Human progress and its socioeconomic effects in society. *Journal of Economic and Social Thought* 5(2), 160-178. Retrieved from <https://ssrn.com/abstract=3219147>

Coccia and Bellitto provided a lens through which to quantify human progress and then examined the positive and negative effects of that progress on society. They then used metrics to provide critical commentary on the direction of society.

Juma, C. (2016). *Innovation and its enemies: Why people resist new technologies*. New York, NY: Oxford University Press.

Juma examined historical instances in which different groups chose to resist the adaptation of new technologies, seeking to explain both the positive and negative consequences of doing so.

Kennedy, P. (2011). *Preparing for the Twenty-First Century*, (reprint ed.) New York, NY: Vintage.

Kennedy's seminal book investigated the rise and fall of powerful nations as the dawn of the 21st Century approached. He studied wide-ranging fields including demographics, robotics, economics, population growth, and the rise of China as a potential superpower to paint a vivid picture of perceptions of progress.

National Intelligence Council (2017). *Global trends: The paradox of progress*. Retrieved from <https://www.dni.gov/files/documents/nic/GT-Full-Report.pdf>

The focus of this publication from the National Intelligence Council analyzed the potential impacts of progress on the world as it moves forward. It provided commentary on the likelihood of conflict between nations and possible ways in which the conflict can be avoided.



THEME 7

Life and Death

How do narratives of life and death inspire commitment to preserving inheritances and building legacies?

By Dr. Rosie L. Banks and Dr. Johannah B. Williams

Honors Program Council and Associate Vice President of STEM and Workforce Programs, Phi Theta Kappa Honor Society

Life and death — and the stories we tell about them — frame the realities in which we exist and encode what we believe are our inheritances and legacies. The Apocalypse is an explicitly Western story of our collective end that emerges out of Christianity. Other cultures and spiritual traditions have stories of life and death that do not include that. The story of the Apocalypse, itself a cultural inheritance, reflects popular perceptions of the legacies of major cultural events. The story's ever-shifting details — How? When? Why? Is anything left? So what? — expose Western hopes, fears, and values. The apocalyptic stories of the Cold War and the Vietnam conflict undergird Baby Boomer yearning and grief in Joni Mitchell's 1970 "Big Yellow Taxi" and John Lennon's 1971 "Imagine." Television and consumeristic nihilism inspire the classic Generation X responses in REM's 1983, "It's the End of the World as We Know It" and Prince's "1999." Prince's drummer Bobby Z recalled that Prince wrote his iconic party song in 1993 after watching an HBO documentary on Nostradamus' prophecies. The classic Millennial expression, YOLO! (2004), speaks for itself. How do cultural events impact a community's legacy or reflect its inheritance?

How a culture commemorates or mourns its dead tells the culture's story of life and relationships. If Victorians made keepsakes of their deceased's hair, today's mourners make mixtapes or frame the deceased's tattoos. Today's mourners might even commit to practices that endanger their own health: in Tanzania, researchers learned that sleeping under bednets during funerals is discouraged even though to not use the nets puts mourners in danger of contracting malaria. What other cultural or communal practices reveal community identity?

The legacies we leave behind also tell stories of our hopes and fears. On July 21, 2019, 23-year-old Chardaye Walker's sudden death left a legacy of life for eight people. As an organ donor, Walker's gift benefited eight families in unique parts of the world. More than half of adults in the United States are registered organ donors, and many others donate their bodies to medical research. For some, creating an offspring is their most important legacy. The desire to create life through reproduction inspires people to go to great lengths. The popularity of assisted reproductive technologies like egg freezing, *in vitro* fertilization, surrogacy, and others proves this. To what extent does the idea of death impact the way that we live?

Our legacies may not only be personal and tangible, but public and emotionally-fraught. Such legacies uncovered in our political and cultural investments expose potential horror stories of losing our well-being, our actual lives, and/or our perceived shares of an inheritance. The question "Who Built America?" generates huge emotional responses among its discussants: African-Americans, Native Americans, and immigrants from Europe, the Americas, Asia, and other continents. At stake is a seat at the table where nations' legacies are created.



Discover More

Gire, J. (2014). How death imitates life: Cultural influences on conceptions of death and dying. *Online Readings in Psychology and Culture. International Association for Cross-Cultural Psychology*, 6(2), 1-22. Retrieved from <https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1120&context=orpc>

Gire explored how various cultures define death and dying to argue for the importance of considering cultural diversity in approaching and understanding grief and mourning practices.

Horowitz, A. (2010). *Inside of a dog: What dogs see, smell, and know*. New York, NY: Scribner.

Horowitz, a cognitive scientist, explored ways in which dogs perceive and experience life.

Kübler-Ross, E. (2014). *On death & dying: What the dying have to teach doctors, nurses, clergy, and their own families, (reprint ed.)*. New York, NY: Scribner.

With updated resources, Kubler-Ross's seminal study of life, death, and transitions introduced the five stages of grief and her research about ways health care and religious professionals can best help ease humans' transitions.

Ostwalt, C. (2016). Visions of the end: Secular apocalypse in recent Hollywood film. *Journal of Religion and Film*, 2(1), 1-13. Retrieved from <https://digitalcommons.unomaha.edu/cgi/viewcontent.cgi?article=1861&context=jrf>

Ostwalt argued that Hollywood films, like film critics, act as popular analysts of religion in society. Reviewing *Waterworld* and *12 Monkeys*, Ostwalt demonstrated that such films reveal the degree to which the films both "commend" the continued importance of religion in popular culture and "critique" the particular ways in which religious understandings show up in the same.

Sunderam S., Kissin D. M., Zhang Y., Folger, S., Boulet, S., Warner, L., Callaghan, W., & Barfield, W. (2016). *Assisted reproductive technology surveillance - United States, 2016 surveillance summaries*. 68(4), 1-23. Retrieved from <https://www.cdc.gov/mmwr/volumes/68/ss/ss6804a1.htm>

The first U.S. infant conceived with assisted reproductive technology (ART) was born in 1981. Since then, the use of ART to assist in human reproduction has steadily increased. This study examined the impact of ART-related births on the health of mothers and babies.



HONORS IN ACTION

PLANNING AND JUDGING RUBRIC

ACADEMIC RIGOR OF RESEARCH – 34 points

Research Question

5 points - The chapter developed a thoughtful, answerable research question to guide its academic investigation of the Honors Study Topic through one of the themes in the current Honors Program Guide.

Research Objectives

5 points - Research objectives clearly emphasized the importance of intentional research as the cornerstone of the Honors in Action project.

Note: Research objectives are related to your Honors Study Topic academic research and include, but are not limited to, things such as the development of your Honors in Action (HIA) team, the number of sources to review (this can certainly be more than eight, but you choose the eight most impactful sources to include in your Hallmark Award entry), how the team will determine research conclusions, the team's reflection objectives, the project timeline, and other objectives you hope to accomplish with your HIA project.

Academic Research

5 points - The entry clearly conveys in-depth academic research into the Honors Study Topic through one of the Themes in the current Honors Program Guide.

Research Conclusions

5 points - The in-depth academic research clearly provided substantial material for the chapter to carefully weigh and consider in determining an action component to implement that clearly addressed a finding and is directly connected to their research conclusions. Clear, compelling evidence shows the research activities allowed participants to strengthen critical thinking skills.

Note: Research conclusions are what you learned and can articulate from your substantive academic research into PTK's Honors Study Topic. Hallmark Award judges should see evidence of members' critical thinking and research skills strengthened as a result of the chapter's academic research. The research conclusions lead you directly to your chapter's action – be sure to make it clear WHY your research conclusions led to your specific plan of action.

Bibliography/Citations

A. Academic Sources

3 points - The chapter's research included eight sources that were clearly academic publications or academic interviews with expert sources conducted in the past year by the chapter team.

B. Sources' Range of Viewpoints

3 points - Expert sources are clearly wide-ranging and clearly represent different points of view about the Honors Study Topic and the Theme selected by the chapter from the current Honors Program Guide.

Citations

A. APA Citations Structure

3 points - The citations are written in formal, full, and consistent APA style and structure.

B. Bibliographic Annotations

3 points - Bibliographic annotations of academic sources provide robust evidence supporting why the source was significant to the chapter's research and how the evidence clearly related to the chapter's research conclusions.

Spelling and Grammar

2 points - Spelling and grammar are flawless. Entry is well-written and easy to follow.



SERVICE/ACTION – 33 points

Action Objectives

5 points - Project objectives were clearly measurable and clearly emphasized the importance of taking action or serving AND emphasized the clearly defined proposed scope of the project.

Action's Connection to PTK's Honors Study Topic

6 points - The chapter clearly shows with specific evidence how the action was developed from the chapter's Honors Study Topic research conclusions.

Outreach/Collaboration

5 points - The chapter's project (Academic Investigation and/or Action) reached a variety of audiences including BOTH the college and the community, and the role(s) played by collaborators were substantive and stemmed from the chapter's research conclusions.

Communication

5 points - There is clear and compelling evidence that communication among the participating individuals and/or organizations was effective and efficient and that they explicitly shared common objectives.

Heightened Awareness of Self and Community in Relation to Global Issues

5 points - Solid, specific evidence is given that chapter, college, and community participants heightened their awareness of self and community in relation to global issues.

Increased Appreciation for Value of Informed Action as Lifelong Endeavor

5 points - The entry provided clear, strong, and specific evidence that participants increased their appreciation for the value of informed action/service as a lifelong endeavor.

Spelling and Grammar

2 points - Spelling and grammar are flawless. Entry is well-written and easy to follow.



IMPACT – 33 points

Contribution to Understanding of the Honors Study Topic

6 points - Without question, the project made substantial, specific contributions to participants' understanding of a Theme as it relates to the current Honors Study Topic.

Contribution to Understanding of the Importance of Lifelong Intentional Service

5 points - Without question, the action piece of the project made a substantial, specific, and measurable contribution to improving an issue determined from the chapter's Honors Study Topic research conclusions and within the clearly defined proposed scope.

Contribution to Improving an Issue within the Clearly Defined Proposed Scope

5 points - Without question, the project had significant, specific, short-term impact and clear potential for long-term impact.

Research Quantitative and Qualitative Outcomes

5 points - Without question, the project's research outcomes were exceptional and specific for the Honors in Action time frame, addressed the chapter's objectives, and were both quantitative and qualitative.

Research outcomes are related to your Honors Study Topic academic research and research objectives and include, but are not limited to, things such as the development of your Honors in Action (HIA) team, the number of sources reviewed (this can certainly be more than eight, but you

choose the eight most impactful sources to include in your Hallmark Award entry), how the team determined its research conclusions, how the team reflected throughout the research part of the project, how the team met its project timeline, and how the chapter met its other research-related objectives. Finally, how did the team determine whether members grew as scholars and leaders?

Action Quantitative and Qualitative Outcomes

5 points - Without question, the project's action outcomes were exceptional and specific for the Honors in Action time frame, addressed the chapter's objectives, and were both quantitative and qualitative.

Reflection

5 points - Without question, the chapter assessed in an intentional, consistent, and reflective way throughout the project what they learned, how they grew as scholars and leaders, and how they met their proposed project objectives.

Spelling and Grammar

2 points - Spelling and grammar are faultless. Entry is well-written and easy to follow.

Check out the latest version of the Honors in Action Hallmark Award questions and judging rubric at
<https://portal.ptk.org/Programs/HallmarkAwards/HallmarkAwardCategories>

Looking for examples of Honors in Action projects and Hallmark Award entries?
Check out the latest edition of *Civic Scholar: Phi Theta Kappa Journal of Undergraduate Research* at
<https://www.ptk.org/Programs/HonorsinAction/CivicScholar.aspx>

IDENTIFYING AND ANALYZING ACADEMIC SOURCES

A SCREENING PROCESS FOR LOCATING GREAT ACADEMIC SOURCES

When researching an Honors Study Topic Theme for an Honors in Action project, members should follow an efficient and effective method for identifying academic sources. Given that not all academic sources are created equal, here are some strategies for conducting research and evaluating sources.

Finding your best academic sources should involve two to three searches and time to review what you find. Once you have found academic sources, read them and take notes about why the sources are important to your research. That way, you will have the notes for drawing research conclusions and writing bibliographical annotations.

PRELIMINARIES

After determining your chapter's theme and research question, organize key words of your research question into appropriate search terms.

Example: The sample research question on page 29 of the guide is the following:

Theme 4: Expressions of Truth
How might students evaluate the inherited body of knowledge around climate change to create a legacy of information literacy for future students?

Possible Initial Search Terms: climate change, opposition to climate change, global warming

These terms can be searched via your library's databases and resources. Remember, research librarians can help you as you search for academic sources. On the web, try Google Scholar (<https://scholar.google.com/>) to search for scholarly and legal sources.

In the example provided, students might also look for specific scientists or universities whose faculty argue for or against climate change.

FIRST SEARCH: TYPE AND RELEVANCY OF ACADEMIC SOURCES

Type

For your first search, use the initial search terms created by your HIA team and review them for both the types of texts found and their relevance. Texts can be classified traditionally as primary or secondary sources, or, more currently, within the context of multimodality.

What is multimodality?

Multimodality is a theory of communication and learning that organizes knowledge into five distinct learning modes (semiotic groups): textual, aural, linguistic, spatial, and visual. Multimodal educators and researchers may use two or more modes in conducting research or in teaching and learning processes. Multimodality is inclusive of cultural, linguistic, communicative, and technological diversity in the world. As communication practices have changed drastically over the past 20 years, it is desirable, even necessary, to think of using more than written materials for academic research purposes. Progressively, there is a need to compose materials in formats that are accessible to all learning styles.

The following graphic provides examples of multimodal research tools. This graphic is not exhaustive. You may note that the references provided both online and in the Honors Program Guide include several different modes.

Textual	Written words as in books, articles, novels, advertisements
Aural	Speeches, podcasts, videos, audiobooks, music, storytelling
Linguistic	Interviews, focus groups, spoken word, speeches, books
Spatial	Dance, storytelling (gestures), graphic novels, posters
Visual	Images, media, maps, documentaries, live performances, animation

The discussion that follows applies generally to all types of texts. When there are references to specific considerations for specific texts, they are explicitly noted.

Relevancy

"Data is inherently dumb," proclaimed Peter Sondergaard, head of research at Gartner, Inc., a global research and advisory firm. "It doesn't actually do anything unless you know how to use it; how to act with it..." (Oliver, 2015).

Aside from type, your first search should review the sources found for relevance, because breaking down your research question into potential search terms may still not yield the most focused and useful results.

So, what are you looking for?

First, take time to determine which types of multimodal sources might be relevant to your project. For example, if you are researching the hidden voices of young adults in an urban setting, then perhaps spoken word performances may be an excellent multimodal research tool to consider along with expert sources that help you interpret the performances. On the other hand, if your research is about incarceration rates in urban environments, it is highly likely that spoken word performances may not be credible nor reliable.

As another example, you may have interesting conversations with a friend regarding the Korean War; however, these conversations would not be considered reliable research about the war. Conducting an academic interview with a veteran who had first hand experience of the war through service would be much more credible and reliable.

Second, review your potential sources to see whether or not they are useful to your HIA team. That is, what information would the source provide you that you need? By examining titles and abstracts, you can easily determine if the source will provide useful historical or theoretical information regarding your topic. Perhaps the source contains an answer to your research question with a rationale for that answer. Or, perhaps your source surveys a number of potential responses to your question so that you can easily see how scholars have discussed your research question thus far.

Third, to the extent possible, you should try to determine what the author's purpose, overall project, or thesis is so that you do not use the author's work out of context or unfairly.

Lastly, once you have determined that a source is relevant, you should scan the references to see if there are seminal sources (works that are classic or essential to the field) listed and scan the document to see if there are any additional keywords that will support you in revising and focusing your search.



SECOND SEARCH: CURRENCY AND CREDIBILITY/ETHOS

Currency

Your second search should utilize the more focused keywords and authors that you found in your first pass in the databases and/or Google Scholar. However, this time, do not review the list right away. Instead, filter it so that you only search within the last five years, unless you are dealing with seminal works. Occasionally, you will encounter a topic or question that no one has researched in the last five years. Then, of course, you want to find whatever is the most current research available and figure out why no one has worked on this topic in some time.

Credibility/Ethos

Once you have filtered your list for currency, you can start to sort for credibility. The credibility of a source depends on the type of source being used. While the section "Type" in the previous graphic will help your HIA team classify the sources that you are using, also consider the following rules of thumb:

1. Books

Generally speaking, self-published books are not considered as credible as books published by commercial publishers and/or university presses. In terms of credibility, university press published books rank highest, because they tend to receive much more scrutiny from experts in a given field.

2. Periodicals/Journals

We are entering an era where academic knowledge building is being increasingly democratized and digitized, which is great. Nevertheless, greater accessibility of information may belie its credibility. If you decide to use open access resources, you should review them carefully to ensure that the information has been properly vetted by experts in the field. Peer-reviewed research is simply more credible.

3. Internet Domains

Researchers are encouraged to stick closely to the domains of educational institutions (.edu) and the government (.gov) or the military (.mil). This does not mean that the other domains — .net, .com, .org — are useless. They, however, require more scrutiny and review, as discussed in the last section.

Further Review

After two distinct searches, you are now ready to read more deeply the works that are left before you. What you are now looking for are logical, grammatical, and intellectual errors that may reduce a writer's credibility even if the work passed the tests for relevance and currency above. Some areas of review include the following:

- 1) **Bias** – We are all biased, but when does one's bias override one's credibility? One great example of this is a site about the Rev. Dr. Martin Luther King, Jr. that is hosted by NeoNazis. Again, "data is dumb" (Oliver, 2015). While specific facts may be accurate, the overall interpretation may be misleading.
- 2) **Logical Fallacies** – You can find a number of websites online that discuss common logical fallacies, such as ad hominem (to attack a person rather than the person's argument) or straw man (to distort an argument so as to more easily rebut it). Your English instructor or a librarian or a logician can easily assist you in sorting through articles for logical fallacies.
- 3) **Grammatical Errors and Typos** – If an author and/or editor has not effectively edited the material, the argument(s) proposed may not be very sound. Researchers are encouraged to pay close attention to such details.
- 4) **Factual Errors** – If the author's facts are incorrect, this may mean that their overall argument or thesis is also incorrect or ill-informed.

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DEVELOPING A RESEARCH QUESTION

- Start exploration of the Honors Study Topic with a broad examination of *To the Seventh Generation: Inheritance and Legacy*.
- Read and reflect on introductory essay on pages 5-7.
- Read and review the 7 themes and their introductions beginning on page 8.
- Consider themes that trigger your chapter's curiosity and passions.
- Discuss possible issues relevant to the themes that genuinely interest your team and consider how those issues relate to your campus and community.
- Explore what's current in the national and international news, on your campus, and in your community. You are building contextual knowledge that will direct your team toward a theme and help you develop a question that will direct your initial research.
- From your contextual knowledge, use your observation to help lead your team to a research question.
- Explore issues within the themes. Remember, not all issues are specifically stated in the theme, as this is an intellectual framework and a guide to provoke discussion. As you choose a theme, consider which theme seems most relevant to the intellectual curiosities of your chapter members.
- Make sure the pursuit of your intellectual curiosity is interdisciplinary and global. Though your chapter will likely work at the local level, be sure to initially consider your theme through an international lens.
- From your team's observations, begin developing research questions by asking:
 - What do we want to find out about our research topic?
 - What research have scholars conducted already?
 - What remains undiscovered about this topic?
 - What are the relevant and credible sources, and how readily available are they?
- Remember, when you answer research question(s), two important developments can happen that are normal parts of the process:
 - The scope and nature of your question can change.
 - Your theme may change based on what your team finds.
- Sample Research Question: To what degree have inherited understandings of freedom of the press guided societies worldwide? (Theme 6)



HONORS IN ACTION JOURNAL

Keeping a journal throughout the HIA project is an important tool to track what you learned, how you grew as scholars and leaders, and how you met your proposed project objectives. Reflection is a significant part of the HIA project rubric.

- Everyone on the HIA team should keep a journal.
- Journaling can be accomplished on paper or online (check out Google Docs, Glimpses, Memento, etc.)
- Consider setting deadlines for reflections as part of your project timeline.

Get ready; get set; go!

- Congratulations on being a part of your Phi Theta Kappa chapter's Honors in Action Team! How did your chapter choose the team, and how do you think you might grow individually as a leader and a scholar during the process?
- What were your research objectives for the project?
- Which themes in the Honors Program Guide were most interesting to you and why?
- How did your group choose your theme related to the Honors Study Topic?
- Does the theme address a real-life issue in your community?
- What are your deadlines?

If you want good answers, you must ask the right questions, and set the right objectives.

- What are your research objectives? How did you develop them?
- What is your research question? Is your question thoughtful and answerable?
- Is your question directly related to one of the themes AND the overall Honors Study Topic in the current Honors Program Guide?
- By what process did you develop your research question?
- Who (faculty, advisors, librarians, experts) engaged in the research and development that led to your research question?
- What different disciplines can you connect to your theme as it relates to the Honors Study Topic?
- What are the varied perspectives and points of view to explore?
- What sources can you identify that represent the varied points of view about your theme as it relates to the Honors Study Topic?
- What are the details of your research plan (number and type of sources, deadlines for reporting, etc.)?



What did you learn? What conclusions did your team draw?

- What academic sources did each researcher consult? What were the three most meaningful things each researcher learned from each source that informed your understanding of the chosen theme as it relates to the Honors Study Topic?
- What did you learn from analyzing and synthesizing your team's research?
- What are your research conclusions?
- What obstacles did you face while conducting research? How did you overcome them?
- What are the quantitative and qualitative outcomes of your research?
- How were your critical thinking and research skills strengthened as a result of the chapter's academic research? How can you provide any evidence of this growth?
- How did your academic research into the Honors Study Topic help you better understand the world?
- How have you shared the studies, research, analysis, and conclusions with chapter members, people on campus, and/or community members?
- What specific plan of action did your research conclusions lead you to choose? Explain how and why.

How did your answers change your questions?

- In what ways was your HIA research personally challenging?
- How did your answers change your questions?
- What pre-conceived ideas held by members of your team were challenged and/or changed through the research process?

What will you do with your newfound knowledge?

- What did you learn during the academic research phase of your HIA project that led you to identify an action that tied directly to your team's research on the Honors Study Topic?
- Whom will you serve? (demographics, numbers, location, etc.)
- How will your project serve your campus? How will your project serve your community?
- What organizations exist locally that are engaged in actions (service, awareness, advocacy) similar to what you aim to do? What can you learn from their work?
- What organizations exist in the world that are engaged in actions similar to what you aim to do? How does their work inform yours?
- What is the specific impact you intend to make?
- What are the details of your strategies and plans?
- How are you going to measure the impact (quantitative measures and qualitative measures)?

Reflect on how knowing more helped to change you, your chapter members, your community, and the world.

- What are the specific results and impacts of your research, growth as scholars and leaders, and the resulting action?
- What are the reactions and feedback from the people and organizations with whom you collaborated?
- What is necessary for your service/action project to be sustained and grow?
- With whom did you collaborate to complete your project?
1) People on campus? 2) Community members? How and why did you select your collaborators? How did you communicate with them, and how did you collectively reflect on your HIA project?
- Did you meet your chapter's initial objectives?



SAMPLE HONORS IN ACTION PROJECT

To the Seventh Generation: Inheritance and Legacy

How might students evaluate the inherited body of knowledge around climate change to create a legacy of information literacy for students to come?

1. Provide a brief abstract or summary of your Honors in Action project including

- a. academic research into and analysis of sources related to the Honors Study Topic;**
- b. action that addresses a need in your community that was discovered through your research and analysis into the Society's current Honors Study Topic, and;**
- c. the impact of your project.**

(Note: Recommended word count for the abstract is no more than 300 words.)

Evaluating scientific writing to determine which of two opposing viewpoints is correct can pose challenges to undergraduate students. We choose to examine how literature connected to climate change includes multiple viewpoints around seemingly established scientific facts and principles. College students and community members at-large must understand that while we may disagree on certain topics, there needs to be some authoritative method to identify truth in writing, which may facilitate better and more open communication within society. As we examine the Honors Study Topic, *To the Seventh Generation: Inheritance and Legacy*, we felt this best fit into Theme 4: Expressions of Truth. Our project's impact was to help people better understand how to vet a source to determine if its content could be supported by accepted science or was not supported with the scientific rigor used to reach those conclusions. We examined several sources concerning whether or not they agreed with the accepted science on global climate change and evaluated what types of sources were more apt to utilize citations and bibliographic information to support their points. To help the campus community and local citizens gain a better understanding of how to identify quality versus marginal sources, we held a workshop in which participants were broken into sequestered groups, asked to evaluate two questions as they related to climate change, collect sources, then reconvened to examine and discuss those sources. Results of the workshop were positive, and participants came away from it with an enhanced understanding of how science is properly communicated, and what it takes to identify accepted scientific writing.

2. What theme in the current Honors Program Guide did your chapter focus on?

Theme 4: Expressions of Truth

3. Summarize your research objectives. What did your chapter set out to accomplish in terms of its research?

Research Component Objectives:

- Using climate science as the focal point, collect and examine works both supporting the most widely-held scientific positions on global climate change, as well as those that do not agree with the mainstream scientific positions concerning the same.
- Categorize the major arguments that both support and argue against climate change science; attribute sources to each of the main categories.
- Examine the validity of the sources based on common standards in academia; create categories for argument-source groups that will allow us to understand what institutions support mainstream scientific fact and what institutions argue against the same.

4. Describe your academic research into the Honors Study Topic, your research question(s), your analysis of your research findings, and your research conclusions.

Our major research questions focused on how to: 1) better understand what is creating the divide between established science reporting and arguments against scientific findings, and; 2) how understanding the division, in terms of its source, can help us better determine what constitutes a high-quality and academically-acceptable source. Beginning with a faculty member in the science department and the research librarian, we sought to collect seminal works regarding climate change in order to understand the currently-accepted arguments on the subject. The professor and librarian assisted us in learning how to use the library's database to identify literature on the topic. We then decided on several phrases to use in general Internet searches (non-academic databases) such as "arguments against climate change," "differing views on climate science," and "climate science debates." We used ProCon.org, too, because the site offered arguments from varied sides about whether human activity is primarily responsible for climate change. This allowed us to build a library of sources that typically argued against the mainstream positions on climate science in general and global climate change specifically (133 sources in total). Source material with annotations was stored using a bibliography creation platform for easier cataloging and referencing, and later, citing in APA format for writing and editing the HIA Hallmark Award entry.



We broke the research team into two groups, with each group responsible for reading each of the works collected (i.e., all researchers read all works). Then, we decided into which group the work belonged: 1) aligned with the currently accepted science on climate change, or 2) in opposition to the same. We then reconvened and compared lists to make a final determination into which category each work belonged. In cases where we were not in agreement (13), we met with the science professor to help explain the position of the author more clearly, and again attempted to categorize the work. In 10 of the 13 cases we were able to do so, and the three (3) remaining papers that could not be agreed upon were removed from further consideration, leaving 130 works in the study. In total we identified 102 (of 130, 78.4%) publications that aligned with mainstream science and 28 (of 130, 21.6%) that did not. Then, within each category, we determined whether the source was: 1) an academic (peer-reviewed) journal; 2) a book; 3) a government report; 4) a non-profit (private) agency report; 5) a newspaper or other media outlet piece, or; 6) a "personal" webpage or blog.

5. List the eight academic/expert sources that were most enlightening regarding multiple perspectives of the Honors Study Topic theme you selected. Briefly explain why these were the most important sources and what you learned from each of them as you researched your theme. NOTE: Please use full, formal APA citations for your entry.

(Four resources listed here, one with an annotation, for the purpose of the sample HIA project. Chapters will use more academic sources as they develop HIA projects, and the eight most meaningful to their projects will be listed and annotated as part of their HIA Hallmark Award entries.)

Cook, J., Oreskes N., Doran, P. T., Anderegg, W. R. L., Verheggen, B., Maibach, E. W., Carlton, J. S., Lewandowsky, S., Skuce, A. G., Green, S. A., Nuccitelli,

D., Jacobs, P., Richardson, M., Winkler, B., Painting, R., & Rice, K. (2016). Consensus on consensus: A synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters*, 11(4), 1–7. Retrieved from <https://iopscience.iop.org/article/10.1088/1748-9326/11/4/048002>

Climate change, more commonly and incorrectly lumped under the label "global warming," is a charged topic in social, economic, scientific, and political arenas. Several studies prior to Cook, et al. have attempted to measure the degree to which the scientific community believes that humans are the primary cause of climate change. While having come under fire upon its release, from obvious detractors, the Cook study represents the most comprehensive explanation of consensus among climate scientists yet.

Colepiccolo, E. (2015). Information reliability for academic research: Review and recommendations. *New Library World*, 116(11/12), 646–660. Retrieved from <https://doi.org/10.1108/NLW-05-2015-0040>

Mai, J.E. (2013). The quality and qualities of information. *Journal of the American Society for Information Science and Technology*, 64(4), 675–688. Retrieved from http://jenserikmai.info/Papers/2013_QandQofInfo.pdf

Sorenson, M.E. (2016). Beyond the Google search bar: Evaluating source credibility in contemporary research. *Communication Teacher*, 30(2), 82–86. Retrieved from <http://dx.doi.org/10.1080/17404622.2016.1139150>



6. Summarize your project action and collaboration objectives. In other words, what did your chapter set out to accomplish in terms of its collaborations and actions?

Action Component Objectives:

- Host a research librarian-facilitated workshop examining methods by which students can effectively vet sources to help determine the level of academic rigor and/or acceptability.
- Produce a professional poster highlighting the difference between academically acceptable sources and non-academic sources to be presented at the college's fall research forum.

Collaboration Component Objectives:

- Enlist the assistance of one professor from four distinct academic areas, as well as the college librarian, to assist us in developing a rubric to help identify the major criteria that make a source more or less academically acceptable.
- Develop a resources page based on the workshop to be included on the college library's *Academic Resources* page.

7. Describe the service or "action" components of this Honors in Action project that were inspired by and directly connected to your Honors Study Topic research. (Action can also include promoting awareness and advocacy.) Be sure to include information about the people and/or groups with whom you collaborated, why you chose these collaborators, and the impact they had on the outcomes of the project.

In order to utilize this review of publications on climate science to help us better understand source material, and the importance of relying on works produced from rigorous application of accepted research principles and publish with reference to other works and currently accepted knowledge in the field, we decided to hold a workshop focused on identifying quality source material. Participants, with access to a desktop (the workshop was held in the computer lab and two adjoining classrooms) or a laptop, were provided with the rubric we created, and were broken into three groups: 1) one-third were asked to use only the college library to find sources; 2) one-third were asked only to look in newspaper or other media outlets, or non-profit agency pages, and; 3) one-third were given no parameters at all concerning what sources they could access. Each group was assigned a different room and given the same two questions to

address through the use of their assigned source-types. The questions were:

1. To what extent is it natural for climate to fluctuate, and how does current climate science address this?
2. How do we know for sure that human-derived greenhouse gases cause the planet to warm?

Once participants had collected at least two sources per question, and graded them on the rubric, the three groups convened in the library to discuss their source material, how it supported each position, and on what previous work the source drew for support. The librarian then worked through several examples using the completed rubrics actual results from participants to illustrate what constituted a good academic source and what was lacking from sources deemed not academically acceptable by a panel of four professors. The workshop concluded with a question-and-answer session directed at the professor panel and the librarian.

8. What are the quantitative and qualitative outcomes of your project? What impact did your project have on the problem addressed and on opportunities for chapter members and others to grow as scholars and leaders?

Our quantitative outcomes led us to believe that it is more typical to find arguments that align with accepted science concerning climate change in peer-reviewed works (34 of 36 examined), books (27 of 31 examined), and government sites (12 of 12 examined) as opposed to differing viewpoints on the topic. When examining the difference between the mainstream and non-mainstream arguments, the non-mainstream works appeared in the following source types in numbers much closer to that of the mainstream arguments: in non-profit (private) agencies reports (4 of 9 reviewed), news outlets (13 of 31 reviewed) and personal publications (5 of 11 reviewed). We also found that in 25 of the 28 (89.3%) cases concerning opposition arguments, no citations nor bibliographic information was present. Of the three publications that did contain citations, two (2) were peer-reviewed works and one was a book. In comparison, of the 102 publications aligned with accepted scientific knowledge, 15 of 102 (14.7%) did not contain citations or bibliographic information (all 15 of the sources in this sub-category were newspapers). Using our research findings, as well as information taken from the workshop, we worked with the library staff to build the resources page to be included on the library website.

The workshop presented an opportunity for students, staff, faculty, and the community to engage in a discussion concerning what is and is not a “good” source. While not everyone participating in the workshop agreed on the categorization of each source concerning its ability to answer the questions presented, the forum created a robust dialog in terms of how to better examine sources rather than simply decide that any published work is automatically acceptable to cite. The qualitative outcomes arising from the workshop allowed us to gain experience in critical thinking

and examining viewpoints that may not align with our own. Moving forward as scholars, we think it is important to gain a solid skill set in properly vetting sources to help us produce the highest quality work possible. This will aid us in coursework at this institution and beyond. This exploration of Theme 4, Expressions of Truth, led us to a better understanding of what it means to examine the source of a published work. We will take this knowledge with us, as we continue our academic careers and our work lives and will do our best to preserve the legacy of academic inquiry as we move toward the seventh generation.

Additional Honors in Action Resources, including an Honors in Action workbook and Honors in Action Online Course, are available online at <http://ptk.org/Programs/HonorsinAction.aspx>

Interested in more Honors-related resources? Visit the following webpages:

Civic Scholar: Phi Theta Kappa Journal of Undergraduate Research
<http://ptk.org/Programs/HonorsinAction/CivicScholar.aspx>

Honors Case Study Challenge
<http://ptk.org/Programs/HonorsinAction/HonorsCaseStudyChallenge.aspx>

Honors Institute
<http://ptk.org/Events/HonorsInstitute.aspx>



Honors Program Council

The Phi Theta Kappa Honors Program Council is responsible for making recommendations to Headquarters staff about the new Honors Study Topic and Honors in Action and for assisting with the writing and compilation of the Honors Program Guide. Made up of Phi Theta Kappa chapter advisors, Headquarters staff, and consultants, the Honors Program Council is selected for its broad knowledge of the Honors Study Topic, Phi Theta Kappa's integrated approach to scholarship, leadership, service, and scholarly fellowship, and its balance in academic disciplines.



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Phi Theta Kappa Honors Study Topics

Established in 1968, Phi Theta Kappa's Honors Study Topic is the cornerstone of Honors in Action and the focus of the Society's annual Honors Institute. The following is a list of past Honors Study Topics.

1968	Our Cultural Heritage: 1800-1860	1994	Science, Humanity, and Technology: Shaping a New Creation
1969	The Changing Nature of American Society: A Challenge to Government	1995	Rights, Privileges, and Responsibilities: An Indelicate Balance
1970	A Study of Twentieth-Century Drama	1996	The Arts: Landscape of Our Time
1971	Man, A Part of Nature/Man, Apart from Nature	1997	Family: Myth, Metaphor, and Reality
1972	The State of Our Nation: Toward Responsible Contributory Citizenship	1998	The Pursuit of Happiness: Conflicting Visions and Values
1973	Voices of Human Experience, I	1999	The New Millennium: The Past As Prologue
1974	Voices of Human Experience, II	2000	In the Midst of Water: Origin and Destiny of Life
1975	Franklin and Jefferson: Apostles in '76	2001	Customs, Traditions, and Celebrations: The Human Drive for Community
1976	William Faulkner: The Man, His Land, His Legend	2002/2003	Dimensions and Directions of Health: Choices in the Maze
1977	Music: The Listener's Art	2004/2005	Popular Culture: Shaping and Reflecting Who We Are
1978	Man Alive: Can He Survive?	2006/2007	Gold, Gods, and Glory: The Global Dynamics of Power
1979	The Brilliant Future of Man: Problem Solving Time	2008/2009	The Paradox of Affluence: Choices, Challenges, and Consequences
1980	A Time for Truth	2010/2011	The Democratization of Information: Power, Peril, and Promise
1981	Man in Crisis: A Quest for Values	2012/2013	The Culture of Competition
1982	The Short Story: Mirror of Humanity	2014/2015	Frontiers and the Spirit of Exploration
1983	Signed by the Masters	2016/2017	How the World Works: Global Perspectives
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