Carl the Complainer: A notable trade book lesson plan

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Put the world in your hand with Geography!
Congratulations to Mary Nine, NCSS Elementary Outstanding Teacher 2014!

Congratulations to Mary Nine, 4th and 5th grade social studies and language arts teacher at Franklin Township Community Schools and the Indiana Council for the Social Studies’ own secretary. Mary’s reputation for her commitment to social studies in the elementary school classroom is far reaching in Indiana. Mary has always been a leader in her school, in her school corporation and for the last eight years as a leader in the Indiana Council for the Social Studies.

Demonstrating both her love of teaching and American History, Mary has participated in the Teaching American History grant and Gilder Lehrman programs. She has recently been awarded the Indiana Council for the Social Studies Outstanding Teacher of the Year Award in 2010 as well as the Gilder Lehrman Teacher of the Year Award in 2011. We are proud to have had Mary serve as an ICSS board member and present at our annual conference.

We would like to thank Mary for her service to education in the State of Indiana as well as ICSS!

The Indiana Council for the Social Studies Secretary Mary Nine: NCSS Elementary Social Studies Teacher of the Year 2014.
I hope you have all enjoyed some summer fun that includes family, friends, relaxation, and rejuvenation. Thanks to a Lilly Teacher Creativity Grant, I was able to explore the coastline of the Adriatic Sea via a driving trip through Italy, Slovenia and Croatia that included tours of vineyards and olive groves, a cooking class, kayaking the lagoons of Venice, a visit to a Sister City School in Piran, Slovenia, snorkeling, and horseback riding. It was a great adventure, and I will be ready to start school...tomorrow!

There are many ICSS activities on the horizon. First and foremost is our fall conference. The Changing “Face” of Social Studies: Preparing Our Students for a Diverse and Changing World is the theme for this year. The heart of this theme relates to the changing diversity in our classrooms and our world AND the changes in the ways we work with our students via technology. This year’s conference will be held Friday, November 14th at St. Luke’s United Methodist Church on the Indy’s north side. Our keynote speaker will be award winning teacher Michael Hutchison from Vincennes. Michael’s exemplary and innovative work in the social studies classroom has earned national and international recognition as he has been at the forefront of using technology in the classroom. Michael is known for his work in curriculum development. We have invited special guests to address topics in U.S. and World History, Geography, virtual connections, extra-curricular offerings, standards and assessments, advocating for Social Studies, and more. Multiple vendors and exhibitors will also join us.

The ICSS Board of Directors, Director of Communications Robert Brady and Webmaster Jeff Swisher have been hard at work to redesign our website and prepare for online professional development. More news about this will come in the next months, but know that ICSS is forging ahead to provide online, easily accessible, relevant professional development opportunities for teachers throughout the state. Our website is being redesigned and will be ready to launch soon. Conference information is now available on our website at www.indianasocialstudies.net.

As you begin your new school year, I hope you will keep in touch with ICSS. Join us on Facebook (Indiana Council for the Social Studies Members) and post questions, comments, links and best practices.

We will post news you can use and that will include professional development opportunities, relevant articles and grant opportunities. Speaking of grant opportunities, if you are interested in applying for a Lilly Teacher Creativity grant, I would be happy to share with you what I learned from others about crafting a successful grant application. And I am pretty sure that my involvement with ICSS as a part of the grant application was a “plus.”

I hope you hear from you, and I hope to see you at the conference in November!

Susan Tomlinson
ICSS President
susan.tomlinson.icss@gmail.com
The target is to have our website completely revised by November. The redesign will allow us to greatly increase the amount of electronic classroom materials we make available to our members with the members only section of the website. The focus for materials development this academic year is elementary U.S. history and middle school U.S. history. We also have just started a project designed to help middle school teachers and high school teacher provide a more inclusive version of American history.

We are also making great changes on the Professional Development front. Jeff Swisher is working to install an ICSS Moodle server. This will allow us to begin providing all of you will online professional development opportunities. The Moodle platform will be supplemented by live video conferences on Adobe Connect.
Dear ICSS Members,

We are very excited to announce that our annual ICSS Conference will take place on Friday, November 14th at St. Luke’s United Methodist Church at 100 West 86th Street in Indianapolis.

Our theme this year is The Changing “Face” of Social Studies” Preparing Our Students for a Diverse and Changing World. Our keynote speaker will be Michael Hutchison. Michael specializes in the integration of technology in the classroom and has written digital curriculum for Social Studies School Service. He has also contributed curriculum for several Ken Burns films including The Civil War, The War, The Dust Bowl, and The Central Park 5, among others. He has also authored World War II lessons for the Indiana Historical Society. As a former ICE President, Teacher of the Year by ICSS, the Indiana Computer Educators, and International Society for Technology in Education, Mr. Hutchison will bring his experiences in and out of the classroom for an informative and engaging presentation.

We encourage you to nominate outstanding teachers in your professional circle for ICSS Awards (due September 15th), and register online for the conference using the links below.
Save the Date

14 November 2014
St. Lukes Church on West 86 St
Indianapolis, IN

Award Nominations (Due September 15th): http://indianacouncilforthesocialstudies.shuttlepod.org/page-935162

Conference Flier: http://indianacouncilforthesocialstudies.shuttlepod.org/page-935291

Lastly, ICSS has created a valuable opportunity for Social Studies Departments and affiliate organizations. Institutional memberships are available for organizations that will accommodate up to five members of the group at the cost of only two individual memberships. Our goal is for this to become a cost effective avenue to keep your organization up to date on the issues and methods making news in the Social Studies. More information will be included in the next issue of Viewpoints and details will be posted on our website soon. (Institutional memberships cannot be submitted online but will have to be done “on paper.”)

We hope everyone has a wonderful beginning to the school year and we look forward to seeing you in November!

Sincerely,

Ellie James
ICSS President-Elect

Conference Chair
Michael Hutchison and his students have been honored state-wide, nationally, and internationally for using technology in the social studies classroom. He has written digital curriculum for Social Studies School Service and has been a curriculum contributor for Ken Burns films for several years, including: The Civil War, The War, Baseball, The Tenth Inning, Prohibition, The Dust Bowl, and The Roosevelts: An Intimate History. Michael’s work for the Indiana Historical Society includes World War II lessons using primary source documents and collaborating on the Robert F. Kennedy “You Are There” materials. Michael Hutchison is a former ICSS Board Member, ICSS Distinguished Teacher, and ICSS Special Service Award winner. He was also honored as Indiana Computer Educators Teacher of the Year and International Society for Technology in Education (ISTE) Teacher of the Year and is ICE Past President.

Breakout sessions to include award winning special guests and topics: technology, flipped classrooms, connecting with guest speakers online, advocating for the Social Studies, National History Day, Hometown Heroes Program (Vietnam Veterans War Memorial Fund), international visiting Fulbright teachers, Social Studies Standards and assessments (elementary, middle, and high school sessions), U.S. and World History, Geography, and the latest developments from vendors and publishers.

Awards ceremony during lunch will include the recognition of outstanding teachers and pre-service teachers. Grants of $300 will be awarded for special projects. For more information about awards and grants, visit the ICSS website. (September 15th grants and awards deadline.)

Vendors/Exhibitors (as of 7/20) include:
Children’s Museum of Indianapolis
Geography Educators Network of Indiana (GENI)
Glencoe/McGraw Hill
Indiana Council for Economic Education
National Geographic Learning,
Carla Westphal and Associates
Pearson Education

For more information: www.indianasocialstudies.net
(online registration available soon)

Join us on Facebook for frequent resource and materials updates

Networking Opportunities!
Performance Growth Points!
What Is The World Without Geography?

As we start anew with high hopes for successful 2014-2015 school year, I can’t help but think about all of the good that Hoosiers have done in the past to make the world a better place to live. As the intention of this column is to highlight a global and international focus, with this issue I would like to take some time to share some different ways we can increase global learning for our students so that they, too, can become people who positively impact the future. First, though I think it is worth asking what we mean by global citizenship. Much more than just watching the World Cup or the Olympics every few years, global citizenship entails something deeper and more nuanced. It has been called a key 21st century skill and is something that our students are expected to be prepared with when they graduate and head into adult life. While there are many definitions of global citizenship, I would like to advance the following for our Hoosier students: a global citizen is someone who identifies as a member of transnational community of people who share values and commonalities of living at the same time in the same world. Less legalistic than other forms of citizenship, global citizenship is one of many identifications that any one person can have as it does not supersede or negate participating in local, state, or national citizenship activities. For me, global citizenship is more of a way of thinking than a document that one would hold. Global citizens understand the inherent interconnectedness of humanity, and while they understand the vast complexity that comes with global diversity, they find ways to work and participate within that atmosphere.

So, then, if global citizenship is approached this way, our task as teachers must then be to cultivate a way of thinking toward the global that will help our students participate and contribute to civic life now and in the future. But what are some of those things? How do we help cultivate that way of thinking? The following is simply a list of my 25 most favorite techniques and reminders on how to do this kind of work with students of all ages. Complete references are included for those of you who would like to delve deeper.
1) Make cross-cultural interaction ordinary
2) Challenge stereotyping & overgeneralisation
3) Learn from ordinary people from different countries
4) Teach how to seek out multiple perspectives
5) Avoid exoticizing other cultures
6) Show examples of cultural change and diffusion
7) Teach interconnectedness throughout time and in the present
8) Organize the curriculum through human rights
9) Teach case studies involving human rights conventions
10) Ask students what global responsibility means to them; investigate their answers together
11) Open the conversation to include multiple approaches to studying human rights: historical, problem-centered, values analysis, international relations, and others
12) Use dual-language books and include real literature from across the world
13) Follow current events together as a class
14) Role-Play events with multiple viewpoints represented
15) Teach bias and perspective by using multiple resources
16) Engage students in charitable projects
17) Model how to think about complex events instead of “protecting” students from them
18) Involve students in systematic inquiry of social justice issues
19) Organize student-led tutoring for ELL students or those studying for citizenship exams
20) Have students create pamphlets to help newcomers with shopping tips or to introduce immigrant-friendly agencies
21) Have students author children’s books welcoming newcomer children into your community
22) Integrate with other subjects to study worldwide issues such as climate change, migration, modern slavery, famine, or global disease (malaria, HIV/AIDS, influenza)
23) Analyze global folktales, proverbs, or idioms in connection with literature, art, history, or culture study
24) Connect with virtual communities of students across the globe to create a cultural exchange
25) Listen to what your students are talking about and create units of study with them that pull everyone out of the classroom and into the world at large

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22-25 from ideas that I have seen and enjoyed using with my own students.
Geography belongs in the Social Studies Classroom every time we teach.

Some of us remember *Where in the World is Carmine San Diego?* To far too many, this computer program became the definition of geography. That was not the fault of those who made the program. Rather, it was the fault those who taught geography in those dismal years when the discipline was in the wilderness. No wonder geography was something to be dreaded. All the rich structure of the subject was lost to the process of memorizing names and pointing to places on a map. Such a shameful over simplification it was. One hopes with all the work of the National Geographic Society, our own GENI, and other educational agencies that everyone has learned geography is so much more that *Where in the World is Carmine San Diego?*

This issue is dedicated to reminding us of just how rich and encompassing the subject of geography really is. To assist us in reviewing the marvels of geography, we turn to GENI, the Geography Educators Network of Indiana, one of the most important resources available to social studies teachers in Indiana.
Quick Note of Introduction

Not to overstate the value of one Social Studies discipline, but in this 21st century, where understanding the spatial world is so important and very employable across many disciplines. Thinking about the relative importance of history and geography, and that the primacy of geography over history for understanding contemporary times cannot be stated strongly enough, as expressed by the following:

As futurist Harry Clay Blaney III stated: “One of the reasons we have not been as good at understanding change as we might have been is that we are taught about a past world as if it were still existing; we are preparing ourselves for a world we no longer face. Even now our schools teach about the world of past decades and largely ignore the present let alone the future.” (1)

This excessive focus on history at the expense of the contemporary world in the rapidly changing times in which we live poses dangers: As Richard Swenson stated: “I am not certainly intending to deprecate the tremendous value of a historical perspective. I am aware that to disqualify history, even partially, is at best presumptuous and at worst idiotic. We should all be warned, however, that at this particular juncture [the turn of the 21st century], an analysis of the past could be more misleading than revealing when it comes to understanding the uniqueness of our day and the dangers of tomorrow.” (2)


(Kathy Lamb Kozenski/GENI – Indiana’s Geographic Alliance, via David Rutherford, Ph.D., Public Policy at University of Mississippi and Executive Director of the Mississippi Geographic Alliance)
An Introduction to GeoSpatial Technologies
by Kathy Lamb Kozenski, GENI, IUPUI

In the 21st century, most professional employment opportunities involve some level of technology skills: data acquisition and management/manipulation, spatial data analysis and applications, spatial data development and research --- all within the purview of geographic literacy. Whether taught under the umbrella of business, medicine, environmental affairs, public policy, physical sciences, space sciences or hundreds of other disciplines, any time a user acquires data and manipulates the data, from a spatial perspective, they are a temporary geographer using their geographic lens.

Geography is to space as History is to time. Without Geography, studying any other fields would be irrelevant; everything has a spatial component! Historically, obtaining data meant sending someone into the field to find and record information --- again and again and again (hence, the creation of a latitude and longitude grid system). Now, through the advances in technology, amazingly, once data is obtained, it can be stored on a computer (hard drive/memory) in perpetuity. Much of the historical data, too, has been digitized and made available via various web-based tools. The data can be utilized by anyone conducting research, analyzing a problem, creating solutions, and planning for the future. The beautiful thing about the technology in this century is that much of this information (data) is publically available. So, individual users can access data and can become problem solvers and planners for the future. Our students --- our future leaders and decision-makers --- can become real-life problem solvers and planners by engaging in local, state, and global spatial data analysis.

Every Indiana middle and high student should be familiar with the “basics” in geospatial technologies: GPS, Remote Sensing, and GIS.

**What is GPS?** Global Positioning Systems, a space-based network of satellites operated by the United States Air Force (our tax dollars), provides users with navigation information on the Earth’s surface. The GPS provides continuous, worldwide service to users for a variety of purposes. GPS works based on triangulation (really, trilateration) --- Algebra involving the x, y, and z axis, three dimensional. Whereas, a good old compass involves using the x and y axis --- two dimensional. The current GPS network provides a minimum of 24 satellites; the 24th satellite was put into place in 1994; a minimum of 24 satellites is required to create an effective GPS as 24 provides a minimum coverage area over the Earth’s surface. Generally, when you turn on a hand-held GPS device or a GPS device in the dashboard of your vehicle or in your cellular ‘phone, or portable e-device, at least three to four satellites can triangulate (actually trilaterate using speed, position, and elevation) your location. The GPS device determines its location by precise time (atomic time at the satellites) and signal transmit time.

Imagine turning on your GPS device to determine your location; the device receives signals that are transmitted by at least three satellites. Based on exact atomic time, the signals create a trilateration of your location on the Earth’s surface. The time that the signal (traveling at the speed of light) takes to travel from the satellite to the GPS device is measured (distance = rate x time). Knowing the distances and precise time
that the signal left the satellite and arrived at the GPS device, the receiver uses algebraic and geometric mathematical equations to determine its location.

The location accuracy displayed on the GPS device improves as the number of satellites communicating with the device increases. Some atmospheric and earthly matters can interfere with the GPS device and satellite signal transmission: trees/leaves, buildings, pollutants, or particulates. Generally, though, the system works very accurately and rapidly. The mathematical calculations that the multiple satellites and GPS device work through in order to find the location is known as trilateration (which is very similar to triangulation from geometry and trigonometry). As technology improves the GPS device and the satellites (the math and physics remain constant), determining your exact location will become even more accurate and rapid. Think about it, for a $100.00 GPS device, you can find your GLOBAL location fairly accurately on an Earth where the equator is approximately 25,000 miles in circumference. Amazing! [Source: GPS.gov, geography.about.com, Wikipedia]


http://2kfans.com/unik/satellite-units-and-

From GPS, further geospatial technologies become more readily available and more easily adaptable to a variety of data analysis, problem solving, and planning for the future.

**What is Remote Sensing?** According to the NASA *Earth Observatory Features*, Remote Sensing “is the science, and art, of identifying, observing, and measuring an object without coming into direct contact with it. This process involves the detection and measurement of radiation of different wavelengths reflected or emitted from distant objects or materials, by which they may be identified and categorized by class/type, substance, and spatial distribution.” ([http://www.earthobservatory.nasa.gov/Features/RemoteSensing](http://www.earthobservatory.nasa.gov/Features/RemoteSensing)) Remote sensing began with the first cameras tethered to an aerial balloon and taking photographs of the Earth’s surface. James Wallace Black took the image on the following page on October 13, 1860 while flying in a hot-air balloon over Boston, Massachusetts. (From Google Images. An oval version is available via the *Professional Aerial Photographers Association – PAPA*)
As time passed, the ability and creativity involved in taking photographs of the Earth’s surface improved. During World War I, cameras were mounted on airplanes to take photographs in order to gain a better understanding of the Earth’s terrain and possible troop movement. In the 1950’s, once satellites and rockets began traveling to space (near space or the upper atmosphere), the imaging of the Earth’s surface occurred through the use of several sensors via remote cameras (cameras on the satellites). Since then, remote sensing has been refined, and will continue to improve in the future, to provide lots of different types of information: atmospheric moisture, soil health and moisture, vegetation coverage, land use, water quality, plant health, and chemistry. Many fields of study (employment opportunities) rely upon remotely sensed data for research and analysis, problem-solving and decision-making and planning for the future. Some examples are meteorology and climatology, forestry, geology, waste management, agriculture, urban development, and water management. Some remote sensing satellites focus solely on the atmosphere measuring such things as moisture, movement, density, and altitude; some focus on surface vegetation and water; and some focus on aspects of the oceans.

Imagine the near space around Earth with hundreds of satellites orbiting the planet; each satellite (or a collection of satellites) has a different job. For example, the GPS satellites identify locations; the Landsat and MODIS satellites collect information about the surface of the Earth; the GOES satellites collect data about the atmosphere. Think about the difference between imagery and photography. Imagery can be processed across the light spectrum (visual and non-visual). Photography is a snapshot, or picture, taken of the Earth’s surface either by satellite, space station, airplane, balloon, remotely controlled vehicle... A remote sensing image is a type of photograph. Also, think about the differences between a remote sensing image and a map. A map is a visual representation of an area (Earth, Moon, Mars, city, country); a map can be created utilizing remotely sensed images WITH layers of information added that convey a message, but a remotely sensed image cannot be created from a map. For example, Google Earth utilizes satellite imagery (remote sensing that is a photograph) with layers of information that provide more context for the viewer. Remote sensing of the Earth occurs at altitudes away from the surface: airplane flight in the near atmosphere, satellites in high atmospheric orbit and in near space orbit.
Remote sensing images taken on April 22 (left) and May 24 (right), 2013

(What changes do you observe in the month that the images were taken? For additional information to support your observations, research the precipitation maps from the Iclimate website for the same time period. To view the entire series of Indiana Landsat 8 images taken from April 22, 2013- May 26, 2013, visit http://www.indianaview.org/glovis/Landsat8_images.html or sort through images from several decades of the Landsat Program at http://glovis.usgs.gov)

The above satellite images were taken by Landsat 8, the newest United States Geological Survey satellite launched in spring, 2013. The colors represent channels 7, 5, and 4 – displayed as reds, greens, and blues. The Landsat 8 cameras see wavelengths that are visible and invisible to the human eye. Each of the 11 channels that the Landsat 8 camera utilizes is captured by a different lens. Plus, the Landsat 8 captures more information about atmospheric moisture, which will help us to understand the weather and climate better. (What changes did you observe? Remember the floods in the late spring of 2013 😊)

Read Larry Biehl’s article on Remote Sensing in this issue of the ICSS newsletter.

The great aspect of remote sensing is that not only Earth-based surfaces (or moon-based or Mars-based...) can be studied, but the same principles and technologies and analysis tools are utilized on the human body! MRIs or cat-scans are remotely sensed images of a part of the human body. These imaging tools are not in contact with the parts under study. Their images can be analyzed in great detail and under great magnification.

Putting a variety of geospatial technologies together to enable the analysis of data congruently

What is a GIS? A GIS is geographic information system OR a software system designed to obtain, manage, and manipulate data – from a SPATIAL perspective – in order to analyze information and solve problems or plan for the future. For example, when your community plans to build a new elementary school, where will it be built? What types of information do you think is utilized to make this decision? Generally, data about the following themes is combined in order to make the best location decision: population growth or decline projections (specifically, for students in grades kindergarten through high school), available roadways, available utilities (electrical, water), property values (too valuable for a school?), cost, available properties near the ideal location, and/or existing buildings near the ideal location that may need to be adapted. All of
this information is available for most Indiana communities, and all of it will be used in order to determine the best location to build a new elementary school. For additional background, watch the YouTube video entitled “What is GIS: an ESRI Video” (http://www.youtube.com/watch?v=kEaMzPo1Q7Q, by Michael DeMers). Another definition of GIS from the ESRI Internet site is: “a GIS is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographically referenced data. In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technology.” (ESRI is a company that provides GIS software and technology support for global applications and research.)

[Below, Illustration of a GIS system with many different layers. The Indiana Geographic Information Council provides a free, online GIS named IndianaMap.]

Indiana is one of the leaders in national geospatial technology efforts in regard to applications and research – due to the thousands of individuals involved in the Indiana Geographic Information Council (IGIC). IGIC is a grassroots organization of geospatial users and providers from all fields of study, all levels of government, and private industry. Much data about our state is shared via the IndianaMap, one of the most important resources that educators can incorporate into the classroom. Each of the 92 counties has approximately 270 layers of spatial data available --- for free --- for Indiana educators, students, and citizens to use. The data from the INMap is utilized to improve the quality and security of lives of Indiana citizens.
The future of geospatial technologies is unlimited! Unmanned Aerial Vehicles/Systems, refined satellites and photography and medical equipment, improved software tools, enriched image projection/holographic imagery, more data … The future is quite bright for those students who are geographically literate in the geospatial technologies!

A few GeoSpatial Technology Resources:

- GPS.gov, [http://www.gps.gov](http://www.gps.gov) for a variety of information about GPS (navigation, timing, positioning, what, how); the link to “What is GPS?” provides lots of visual information.
- For further explanations on the electromagnetic spectrum in relation to Landsat images, watch the PowerPoint “More than a Pretty Picture: The Making of Landsat Images” (23 MB) located at [http://landsat.gsfc.nasa.gov/?p=5139](http://landsat.gsfc.nasa.gov/?p=5139). The PPT provides a presentation about how Landsat images are made. This is, also, an easy to follow introduction to making your own images.
- USGS Landsat links:
  - Earth Resources and Observation Center ([http://earthshots.usgs.gov/earthshots](http://earthshots.usgs.gov/earthshots))
  - USGS Landsat and Math (3-12; [http://landsat.gsfc.nasa.gov/education/landsat_math.html](http://landsat.gsfc.nasa.gov/education/landsat_math.html))
  - USGS Annotating Change in Satellite Images (9-12, [http://serc.carleton.edu/eet/measure_sat/index.html](http://serc.carleton.edu/eet/measure_sat/index.html))
  - Earthshots – highlight change over time via satellite imagery (remote sensing imagery); select the Deserts (Las Vegas, Nevada – provides a series of the larger city expansion and of specific areas of expansion) and the Waters (Orlando, Florida and Great Salt Lake, Utah) themes.
- [IndianaMap](http://www.indianamap.org)
- [Indiana Spatial Data Portal](http://gis.iu.edu)
- IndianaView, [http://www.indianaview.org](http://www.indianaview.org)
- AmericaView (via United States Geologic Survey-USGS) Remote Sensing Activities: (http://americaview.org, click on the Program Areas, Education & Outreach; follow the K-12 Earth Observation Day link; then, follow the Lessons & Activities links)
  - Geology.com's Introduction to Landsat Images (K-8)
  - An Introduction to Map Scale Using Google Earth (6-12)
  - NASA's Earth Observatory (K-12+)
  - Natural Resources Canada Tutorial on Remote Sensing (9-12+)
  - SEOS Remote Sensing Tutorial (7-12)
  - Google Earth Introduction to Remote Sensing (6-12)
  - Understanding Land Use and Land Cover Using Google Earth (6-12)
  - MultiSpec© Remote Sensing Tutorials for Earth Observation Day (6-12)
    - Tutorial 1: Viewing Remote Sensing Imagery
    - Tutorial 2: Unsupervised Land Cover Classification
    - Tutorial 3: Supervised Land Cover Classification
    - Tutorial 4: Land Cover Change Analysis
- Real-time International Space Station view of the Earth and ground-tracking: [http://jiss.astrovieviewer.net/](http://jiss.astrovieviewer.net/)
- Why is Geo-Literacy Important? YouTube video [http://education.nationalgeographic.com/education/media/why-is-geo-literacy-important/?ar_a=1&ar_r=999](http://education.nationalgeographic.com/education/media/why-is-geo-literacy-important/?ar_a=1&ar_r=999)
- GeoSpatial Revolution, video series,
  - Episode One, [http://www.youtube.com/watch?v=poMGRbfgp38](http://www.youtube.com/watch?v=poMGRbfgp38)
  - Episode Two, [http://www.youtube.com/watch?v=GXS0bsR0e7w](http://www.youtube.com/watch?v=GXS0bsR0e7w)
  - Episode Three, [http://www.youtube.com/watch?v=OePOK6nzcaY](http://www.youtube.com/watch?v=OePOK6nzcaY)
  - Episode Four, [http://www.youtube.com/watch?v=9F7z9LLYxf8](http://www.youtube.com/watch?v=9F7z9LLYxf8)
- Library of Congress, Chronicling America (digital, archived, historic state newspapers) [http://chroniclingamerica.loc.gov](http://chroniclingamerica.loc.gov)
- ESRI, ArcGIS --- FREE to K-12 schools for educational use, [http://www.esri.com](http://www.esri.com)
  - Follow the link at the bottom: What is GIS? [http://www.esri.com/what-is-gis](http://www.esri.com/what-is-gis)
      - The New Geographers (PDF)
      - Essays on Geography and GIS (Volumes 1-5, PDFs)

  - GIS and APHG, STEM, STEM & GIS Map Gallery, Case Studies, Community Atlas, activities, Policy,
  - Administration...
  - ArcGIS for Desktop, for Online/Cloud, training/tutorials, literature


- Teaching GIS, a contained website with a variety of information about teaching GIS, [http://www.teachgis.org/](http://www.teachgis.org/)
The Future of GeoSpatial Technologies: Developments that will Make Remote Sensing More Accessible, Reproducible, and Fun!

By Dr. Vijay Lulla, Department of Geography, IUPUI

Remote sensing is the process of collecting information about an object without being in direct physical contact with the object. Our eyes are an example of a very powerful, diverse, and sophisticated remote sensing device. This standard definition and the example of our eyes are used most commonly in almost all geography/remote sensing courses everywhere. Basically it is just a process of extracting meaningful information from data. Look at the two pictures of the same area a few years apart:

![Images of Indianapolis, 1976, 1999 and 2010.](image1.jpg)
What do you see? Do you see any changes? How did you determine these changes? Trying to formally answer these questions will reveal the complexity of this task and how effortlessly, and quickly, you managed to do this whole task. The task that you just did is called image interpretation and you will not believe the amount of resources, actual physical and material, and how much labor went into making these images available to you so that you can do the image interpretation. The current state of hardware and software development makes this procedure more accessible without needing a lot of personal resources.

These are exciting times to be studying/researching remote sensing-related applications/techniques. This is primarily due to two developments, 1) ubiquitous availability of image capture devices, and 2) easy availability of software to process this image data. Lest you think that I’m exaggerating check out Prof. Bryan Shaw’s story on NPR (http://www.npr.org/blogs/health/2014/05/06/309003098/chemist-turns-software-developer-after-sons-cancer-diagnosis) aims to show the development of software that can automatically detect leukocoria from off-the-shelf image processing software. The principles and techniques that he describes in implementing classification algorithms in this software are almost similar to classification algorithms used for land remote sensing. If you download MultiSpec (https://engineering.purdue.edu/~biehl/MultiSpec/) you can do some simpler forms of such classifications of images yourself. What is even more exciting is that you can capture your own images and use it to experiment/explore different classification/machine learning algorithms yourself!

The future expansion of geospatial technologies will explode due to the availability of affordable drones, which will enable you to capture images very similar to land images obtained by satellites (Landsat, MODIS, ASTER, etc. etc.). Capturing your own data will give you great opportunity to observe, first-hand, all the logistics and preprocessing that goes into making the data available to you from platforms like EarthExplorer, GloVis, and IndianaView. This will also disclose to you the different challenges and problems that scientists had to address when they were building the first of the satellite systems all those years ago. There is no better way to learn, and internalize, the intricacies of a process except trying to replicate it yourself. This is the reason why experimentation is such a huge component of scientific undertaking. To experiment with images with geospatial information you’ll need some specialized software which leads to my next point.

Future growth of geospatial technologies will be driven by (or will drive) even more diverse software tools. Software is fundamentally changing the world around us, and I’m sure each and every one of you has a unique perspective on how to best use it to accomplish things you wish, whether they be scientific, artistic, or literary! Can you imagine living in a time when you didn’t have all these convenient electronic devices and all the software? No, I’m not talking about smartphones and tablets. Consider a simple word: processor. I tried hand writing (oh, what horror!) a letter to my family back home in India, and I kept crossing out sentences so often that I had more crossed out lines than actual legible lines! Now, I do not underestimate the importance of delete/backspace! If a simple word processor affects us so much, can you imagine how much specialized software helps us? In the past, geospatial data processing required specialized software, but with the rise of popularity of open source movements, you now have access to such specialized (not as powerful and/or feature complete as commercial counterparts) software at your fingertips. Some examples of such software are MultiSpec (above mentioned), QGIS (www.qgis.org), and GRASS (http://grass.osgeo.org). Erdas Imagine, ENVI, E-Cognition, ArcGIS, Maptitude (GIS programs) are their commercial counterparts. There is a similar
tension in the world of statistics and statistical modeling where R (www.r-project.org) and python/numpy (www.python.org) are challenging traditional closed source systems like SAS and SPSS. Check out an article on R published by the NY Times @ http://www.nytimes.com/2009/01/07/technology/business-computing/07program.html?pagewanted=all

I am so excited about all of the possibilities that abound for a curious and diligent person, whether or not in academia! With access to the Internet and availability of specialized, open source software (or the counterparts to similar commercialized software) provides a rich environment for experimentation and exploration. I envy today’s young people, all the new explorers, their joys and frustrations in their future, new endeavors!
Kenya and its Geography
By Dr. Rick Bein, Department of Geography, IUPUI

Geography is the study of “where” and “why is it is there?” Geography provides dimension to every phenomenon and enriches understanding within other disciplines. Geography has five traditions: location, place, region, movement, and human/environment interaction.

My study in Kenya incorporates the geography tradition of “region” as well as “human/ environment interactions.” As Kenya prevails in the east African region with its dramatic efforts in economic development, it engages in the many aspects of the human environmental relationship.

Kenya presents one of the more diverse geographies of Africa. There are more climatic varieties in Kenya than any other African country except for Ethiopia and, culturally, there are several tribal families that make for a diverse linguistic base.

The coastal lowland along the Indian Ocean presents a hot and humid savannah climate that engages tropical farming of multiple types, mainly commercial and some subsistence crops. Tourism along the coast has grown significantly over-shadowing the agriculture. The narrow coastal strip stretching between Tanzania and Somalia contains Kenya’s longest written history. This includes the dominant Islamic presence that has prevailed among the tribes for hundreds of years combined with the later arriving European influence in the 1500’s.
Interior Kenya has been occupied for over 2,000 years by Bantu and Nilotic speaking tribal groups. The Bantu tribal groups are thought to have migrated across the savannahs from West Africa, and the Nilotic groups have their origins in Egypt at Sudan. The Nilotic peoples surround Lake Victoria and occupy most of the western highlands of Kenya. The Bantu tribes are more scattered throughout Kenya and find themselves extending southward though the rest of eastern Africa. There are other smaller tribal families, such as, the Cushitic groups in Northern Kenya.

The Kenyan highlands offer a diverse physical geography. The magnificent Rift Valley splits the country into east and west. The rims of the 50 mile wide valley reach elevations of 8,000 feet above sea level, offering consistently cool climatic conditions.

Mount Kenya, reaching over 17,000 feet, rises in central Kenya just south of the equator, independent of the rift valley system, offers a series of climatic variations. Mount Kenya’s elevations - above the 6000 foot level - have been excluded from agricultural exploitation and are reserved for the propagation of the large African wild animals and the promotion of tourism. Wildlife tourism has become the leading source of income to Kenya.

*The annual wildebeest migration is a major event in Maasai Mara National Park. Photo by Rick Bein.*

Most Kenyans enjoy the higher elevations where the majority engage in subsistence agriculture interspersed with commercial tea and coffee cultivation grown mainly for export. Subsistence farmers grow food crops such as maize and beans along with kale, squash, and beans, frequently grown together in the same field along with a variety of other crops. Year-round farming is available due to the climate. Farming incorporates crops for human consumption and domesticated livestock consumption. Crops are rotated based on need and season, and crops are incorporated utilizing vertical space. Some plantings involve small trees over-story ground crops.
Most Kenyan farmers are women who grow a great variety of crops mixed together in the same plot, Bungoma County. Photo by Rick Bein.

Napier grass (taller plant, which is cut and fed to livestock) is grown along with pumpkins, beans and tree seedlings. Photo by Rick Bein.
A high mix of crops, including trees, fruits, vegetables, maize, and beans, in Nyeri County. The image shows how intense agriculture is in the highlands of Kenya. Poli-culture (crops grown together, inches apart) dominates the landscape interspersed with monoculture of sugar cane in the area second to the top of the hill, just before some trees. Photo by Rick Bein.

The population of Kenya (43 million people) is growing rapidly, doubling every 26 years. Forty two percent of the population is less than fifteen years of age. The urban population has now reached 24%. The rapid urbanization has mainly impacted Nairobi, the capital, which now exceeds 3 million inhabitants. The city is a haven for very rich Africans, but is also experiencing increasing rates of crime.

Since the turn of the century, higher education has become a priority among Kenyans. Many new private universities have become established along with the flagship institutions, University of Nairobi, Kenyatta University and Moi University. The IUPUI School of Liberal Arts has a partnership with Moi University and is able to provide many educational and field opportunities to Moi and Kenya.

Kenya’s future includes balancing tourism and economic expansion with traditional, sustainable lifestyles for most of the population. Improvements in (K-12) education literacy are a goal for the country.
Motorsports Geography

Dr. Andy Baker, Department of Geography, IUPUI

What is Geography?
Old-school Geography from the 20th Century focused on the identification of countries, rivers, and capitals. This was logical at the time considering many new countries and capitals were forming and pretty much the entire world was finally explored and mapped. Subsequently, Geography became the subject for student memorization of countries, rivers, and capitals. New-school Geography or, in other words, my definition of 21st Century Geography, has evolved thanks to increasing access to new technologies (computer maps, GIS, satellite imagery) and innovative Geography teachers and researchers asking deeper questions. Whereas the old-school view of Geography was concerned with the “Where?” question, I define new-school Geography as anything that asks the question, “Why?” or “Why here?” For example, why are higher rates of certain types of cancer found near brownfield sites in Indianapolis? Why is the Emerald Ash Borer, an invasive species from Asia, destroying ash trees throughout northern Indiana? Why is motorsport such an important to Hoosiers across the state?

In the discussion that follows, I will answer the latter question using motorsport as way to understand Geography and why it matters. I choose motorsport for a myriad of reasons. It’s currently the 4th most popular sport in the country, behind only professional football, baseball, and college football in a 2012 poll by Harris Interactive. I also have a personal connection to motorsport as my parents gave me the initials “A.J.” in honor of their favorite race car driver, A.J. Foyt. Recently, I have successfully defended a Master’s thesis and PhD dissertation in Geography researching the impact of motorsport on cities and regions. I’m currently a Lecturer in Geography and the Director of Motorsports Studies at IUPUI.

Why is motorsport important in Indiana?
Motorsport is more than simply cars going round-and-round in circles as the sport can play a key role in stimulating regional and national economies. Of particular interest to economic geographers are southern England, Charlotte, North Carolina, and Indianapolis, which represent the three core geographic areas, or clusters, of motorsport teams, suppliers, and companies, each of which having a substantial local economic impact. Motorsport represents a highly-skilled segment of the manufacturing workforce that is constantly innovating in hopes of producing a faster, winning motor vehicle in race competitions. The abundance of motorsport workers, particularly within Metropolitan Indianapolis, results in this area possessing a high-level of tacit or specialized knowledge of the newest aerodynamic or engineering technologies that are often transferred to be used in future passenger cars. For example, the first known usage of a rear-view mirror was by Ray Harroun in his victory at the inaugural Indianapolis 500 Mile Race as he no longer needed the extra weight of a riding mechanic to keep him abreast of traffic conditions behind. Most of the technology transfers today relate to electronics, safety, and fuel efficiency in vehicles. In a state emphasizing STEM education along
with possessing a large proportion of automotive and manufacturing jobs, motorsport provides the Hoosier State a key source of new innovations and technologies and occupations in engineering and manufacturing.

Not only does Indianapolis host the Indianapolis 500 Mile Race, the largest annual sporting event in the world, but many of the teams competing in the IndyCar Series are also based within the Indianapolis cluster. That said, IndyCar race teams represent only a fraction of the extremely diverse types of race teams found throughout our state. In fact, of the 778 race teams identified in a 2010 survey of the Indiana motorsports industry produced by the Indiana Motorsports Association, 656 or 84% or race teams in Indiana competed in grassroots, local drag races in a division known as NHRA Sportsman. Drag races include usually two cars competing side-by-side from a standing start across a straight line, quarter-mile distance to the finish line.

<table>
<thead>
<tr>
<th>Racing Series</th>
<th># of Entrants/Teams</th>
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<tbody>
<tr>
<td>NHRA Sportsman</td>
<td>656</td>
</tr>
<tr>
<td>Midgets, Sprints, Silver Crown</td>
<td>47</td>
</tr>
<tr>
<td>INDYCAR</td>
<td>24</td>
</tr>
<tr>
<td>NHRA Pro</td>
<td>14</td>
</tr>
<tr>
<td>Winged Midgets, Sprints, WoO</td>
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</tr>
<tr>
<td>Modifieds</td>
<td>7</td>
</tr>
<tr>
<td>Late Model</td>
<td>7</td>
</tr>
<tr>
<td>Other (vintage car racing, tractor pull, Legends)</td>
<td>4</td>
</tr>
<tr>
<td>CRA</td>
<td>4</td>
</tr>
<tr>
<td>NASCAR</td>
<td>3</td>
</tr>
<tr>
<td>Grand-Am</td>
<td>3</td>
</tr>
<tr>
<td>ARCA</td>
<td>1</td>
</tr>
</tbody>
</table>

**Figure 1: Cumulative totals of race teams in Indiana based on type of racing series (Indiana Motorsports Directory, 2010).**

Since 2000, an increasing number of national-level, professional drag racing teams have also relocated to Indiana in Brownsburg, a nearby suburb of Indianapolis. This cluster of race teams has brought economic vitality and development to an area of Brownsburg now known as “Nitro Alley” (top-level drag racing teams use nitro methane fuel). Besides the Indianapolis 500, the Indianapolis Motor Speedway also hosts the annual Brickyard 400 NASCAR and Indianapolis Grand Prix MotoGP (motorcycle) races, while Indianapolis Raceway Park hosts the most prestigious drag racing event in the world, the U.S. Nationals. Of the three motorsport industry geographic clusters, Indiana and metropolitan Indianapolis is the only one that hosts multiple, world-class, motorsport events.

**How do motorsport events impact the places they are held?**

Usually when I inform my university colleagues that I study motorsport, they usually chuckle as they dismiss my research as they ask me questions about Ricky Bobby or Danica Patrick. As a result, I’ve come up with a simple response to my motorsport geography research:

*“It’s not about the races, it’s about the places.”*

My discussion up until now has focused on the impact of the production side of motorsport to three different cities/regions. Motorsport events, much like music festivals, conventions, and football games, can benefit places as they bring in large numbers of spectators to the host area, stimulating the local economy,
particularly hotels, gas stations, restaurants, and other hospitality-related businesses. This economic impact is considerable in Indianapolis where some of the biggest races in the world are held, attracting thousands of spectators. That said, of the 54 motorsport venues in Indiana, the majority are found in small, more rural towns as these locales can also benefit from hosting events, albeit at a much smaller scale than Indianapolis. During the Indiana summer, race tracks across the state host weekly events attracting many local and regional participants and spectators to their locale. Many of these smaller venues are dirt, oval tracks less than a half-mile long. In fact, these dirt oval race tracks are the most common venue type found in Indiana.

**Figure 2: Percentages of active motorsport venue types found in Indiana (Indiana Motorsports Directory, 2010).**

Another way to assess the impact of motorsport on a small, rural town is by understanding what happens when a race track is closed and the engines no longer roar. My research on North Wilkesboro, a small, rural town in North Carolina, clearly depicts this loss of their local North Wilkesboro Speedway, which hosted many NASCAR races over 40+ years. Similar to the closed and vacant speedway that sits nearby, are abandoned service stations that depended on the traffic created from incoming race fans seeking ice, groceries, and gas. I asked several local residents how they would describe their town’s image, further revealing the loss of the Speedway beyond economics. One local resident told me they’re “just another place to get gas on the way to the mountains” while another claimed the town “was the home of NASCAR races... Now it has really no particular image with the exception of an area in decline.”
Figure 3: This more modern looking service station shows its parallel demise with that of the neighboring speedway since 1996 (Photo by author, 2005).

The demise of North Wilkesboro Speedway started in 1997 when NASCAR decided to no longer race at the North Carolina race track as NASCAR chose to expand to new markets outside the core area of the sport in the American South. The expansion of major motorsport events to new areas over the last 15 years has significantly increased as new places across the country and world are hoping to host an event. Where are these new places? Why here?

My research on the IndyCar Series’ recent expansion to new venues revealed that different places are using different strategies in their hosting of race on the IndyCar schedule. IndyCar is the most elite form of motorsport that races on oval speedways, natural terrain road courses, and temporary street circuits. I used case studies of IndyCar events contested on each of these three venue types (Iowa Corn Indy 250 – oval speedway; Indy 200 at Mid-Ohio – road course; Grand Prix of St. Petersburg – street circuit).

Street circuit races rely on a high-level of public support, have a high impact on businesses and residents surrounding the venue, and can showcase a city’s downtown amenities via television exposure of city streets during most of the event. In the case of St. Petersburg, the festival atmosphere and high speed of IndyCar racing in their downtown streets has been part of a process of re-inventing the city as it sheds an image of a quiet city with mostly older residents and has been successful attracting both visitors and residents to downtown. Oval speedway events rely on high participation of private, local event sponsors that are marketing their good or service mostly to local race fans who, for the most part, stay only at the speedway on race day. In particular, the Iowa Corn Indy 250 provides a platform for local, corn-based ethanol promotion of their product in high-performance race cars. Road course races attract a greater number of weekend-long, on-site camping motorsport enthusiasts and participants as these events are more a celebration of the automobile industry, and in particular, the Honda assembly plants that employ thousands of nearby Ohio residents.

In sum, motorsport is more than cars burning carbon for no good reason other than going in circles and geography is more than memorizing our states, capitals, and rivers.
If interested, I occasionally tweet about current geography topics, including motorsport, via @AndyBakerIUPUI.

**Suggested sources:**

In Motorsport Going Global: The Challenges Facing the World’s Motorsport Industry, (Henry et al. 2007) the authors provide a country-level survey of the global motorsport industry. The authors utilize a “SWOT” (Strengths, Weaknesses, Opportunities, and Threats) analysis to separate countries into different groupings based on their relative position in the hierarchy of global motorsport. This resource would be nicely supplemented with discussions regarding the characteristics of the world’s most developed countries (MDCs).

For a discussion on the globalization of Formula One motorsport events to Asia that could supplement most discussions on modernizing Asia, visit a summary I created [here](#). These summaries highlight the different strategies used in different Asian countries that are hosting an F1 event.

A short summary of my research on North Wilkesboro and the North Wilkesboro Speedway can be found [here](#). This summary can be useful when teaching the following concepts: cultural regions and the core-domain-periphery model; cultural landscapes; cultural traits and identity.
What is Remote Sensing? How does it relate to Geography?
By Larry Biehl, Purdue University Instructional Technology, INView Coordinator

This article attempts to scratch the surface of what remote sensing is and how it relates to geography education, particularly, in Indiana. There are many definitions of “remote sensing”. A definition that is closely associated with geography and observations of the earth is provided by Floyd F Sabins Jr: “Remote sensing may be broadly defined as the collection of information about an object without being in physical contact with the object. Aircraft and satellites are the common platforms from which remote sensing observations are made. The term remote sensing is restricted to methods that employ electromagnetic energy as the means of detecting and measuring target characteristics.” (Remote Sensing Principles and Interpretation, W.H. Freeman and Company, San Francisco. 1978 p1.)

A series of satellites that has been used since the 1970’s for medium scale observations of the earth’s surface is Landsat (http://landsat.usgs.gov/). The USGS provides the Landsat data available for free. Landsat satellites orbit the earth around 440 miles above the Earth’s surface and send information back in images with individual elements (pixels) representing 30-meters or 100-feet on the ground. Landsat satellites cover the same area on the ground every 16 days. A single Landsat scene includes around 20 Indiana counties. Figure 1 illustrates an example of the coverage of a single Landsat scene.
Figure 1. Landsat 8 natural color scene acquired on May 1, 2013 over north central Indiana with counties outlined in white. Marion County is the first full county along the bottom from the left. The lighter tan areas represent bare soil. The dark green areas represent dense wooded areas. This scene represents around 50 million pixels.

Sensors like Landsat make measurements in portions of the electromagnetic spectrum that our eyes are sensitive to such as the natural color scene portrayed in Figure 1, and, also, in other portions of the spectrum (or bands) that our eyes are not sensitive to, such as the near and middle reflective infrared and the thermal infrared (heat). These additional bands provide much more information to us about the target being observed. See Figure 3 for an example of a color infrared image.

One example of the use of Landsat images is monitoring land cover change as illustrated in Figure 2. This figure illustrates the change east of Washington, IN as a result of the construction of the new I-69 corridor.
Figure 2. 11/2009 Landsat 5 (left) and 4/2013 Landsat 8 (right) color images illustrate land cover change due to construction of new Interstate 69 corridor in southwestern Indiana east of Washington.

A 3-year initiative organized by the Indiana Geographic Information Council has made available remote sensing data collected by aircraft at ground resolution elements (pixels) of 6-12 inches for all of Indiana. The data were collected during the early spring - before leaves come out on the deciduous trees. These images provide detailed observations of the land and man-made infrastructure. Figure 3 illustrates an image from this initiative collected over the Soldiers and Sailors Monument in Indianapolis in 2013.
Figure 3. 6-inch resolution orthophotograph collected over a portion of Monument Circle in Indianapolis in the Spring, 2013. These data were acquired by a 3-year initiative managed by the Indiana Geographic Information Council to acquire 6-12 inch image over the entire state. The image on the left is a natural color scene. The image on the right is a color infrared image. The near infrared band, red and green bands are displayed as red, green and blue respectively. Green vegetation in near infrared images have reddish tones.

An organization in Indiana that promotes remote sensing and provides free software to view and analyze remote sensing image data is IndianaView (http://www.indianaview.org). The IndianaView website provides sets of Landsat scenes for several counties from the 1980’s, 1990’s and 2000’s to allow students and others to observe the changing land cover in the respective counties (http://www.indianaview.org/glovis/IN_County_Landsat_Data.html). IndianaView has also helped sponsor the development of geospatial tutorials for high school students by the Geography Educators’ Network of Indiana, Inc. (http://www.iupui.edu/~geni/).

IndianaView is part of a larger nation-wide organization called AmericaView which includes 38 other state-views (http://www.americaview.org/). AmericaView and IndianaView are funded by the USGS Land Remote Sensing Program. The purpose of AmericaView and the state-views is to promote the use of remote sensing in the individual states.

Purdue University has made a remote sensing software application called MultiSpec freely available that can be used to view and do basic analyses of remote sensing image data (https://engineering.purdue.edu/~biehl/MultiSpec/). MultiSpec has been used in some of the course material provided by the GLOBE program (https://www.globe.gov/) for K-12 and undergraduate and graduate remote sensing classes.
A rather new area for remote sensing of the earth and one that will provide many opportunities for jobs and new businesses is the use of unmanned aerial systems (UAS). These systems are a relatively inexpensive platform to carry cameras and other sensors to monitor the development of crops, record damage from storms, traffic observations to name just a few. These platforms have also been called UAV’s and “drones”. This rather new field will also require very careful planning by policy makers to obtain a balance between making life easier and better for people but also protecting against unnecessary intrusions into people’s private lives.

Remote sensing, though, is much broader than just making observations of the Earth. Remote sensing techniques are also used for observations of the planets in our solar system, stars in our galaxy and galaxies in general such as provided by the Hubble Telescope (http://hubblesite.org/). Instruments like those on Hubble collect measurements of reflected and emitted electromagnetic energy that has been traveling for a long time to reach the sensors. At the other end of the spatial scale, remote sensing is also used in the medical field to make observations of our bodies down to the cellular level and even smaller. And the list goes on for the uses of remote sensing ... sensors like cameras in factories to control assembly lines and in our vehicles to make driving safer.
The Geography Educators’ Network of Indiana Presents:

GEOFEST 2014
A Geographic Literacy Workshop
Pokagon State Park
Angola, Indiana
October, 17-18, 2013

Hot themes this year include:

> 2013 Geography Awareness Week: The New Age of Exploration
> Geography of racing: automotive and equine
> Chinese culture and your school
> Geography and insects
> An Indiana Supreme Court case on slavery

For a registration fee of
• $50 - GENI Membership+ Members
• $65 - non-members (includes 1-year Membership+)
• $65 - guests
• $40 - pre-service students (with lodging & Saturday breakfast)
• $15 - pre-service students (no Fri. lodging/Sat. breakfast)
• $20 - local educators (who are GENI Members) Friday/Saturday (no Fri. lodging/Sat. breakfast)
• $30 - local educators (who are not GENI Members) Friday/Saturday (no Fri. lodging/Sat. breakfast)

Professional Growth Points available

You will be provided with Friday lodging, Saturday breakfast/lunch/snacks, great handouts, and an autographed book from Kelsey. Space is limited so get your registration in early! Visit www.iupui.edu/~geni to download a registration form. Contact the GENI office if you have any questions:

geni@iupui.edu 317-274-8879.
Design a Bookmark Contest

Celebrate Geography and the Future of Food

November 16-21, 2014

PRIZES: Exciting geography-related prizes for each category [K-2, 3-5, 6-8, 9-12]; Grand Prize Winner chosen from the 4 category winners to receive an additional cash prize and copies of their bookmark in print. Teachers of the winning students will receive geography-related prizes, including a classroom set of “Indiana in Maps: A Geographic Perspective of the Hoosier State” ($350 value). All entries become property of GENI and the winning images will be placed on the GENI website. GENI will also use copies of the Grand Prize bookmark.

BOOKMARK SHOULD:
1. Include an illustration that represents the 2014 GAW theme around the future of food. The hand-made illustration can be either black and white or done in color (using felt pens, crayons, etc.) on the template provided (download from the GENI website). No computer art allowed!
2. Provide a 1 to 3 sentence description for the illustration in the space provided on the bottom part of the template, . (Note to K-2 teachers: Dictation for description will be accepted.)
3. The postcards will be judged on the quality of the work and how well the illustration (and description) convey the theme: Interconnections.

BOOKMARK FORMAT:
1. Use all of the space in the box on the template.
2. The illustration can be either horizontal or vertical.
3. Write the student’s name, school, school’s address, grade, and teacher’s name and email on the bottom portion of the template.
4. Do not fold the entries. Submit to the address below. Multiple entries can be submitted in the same envelope.

Entries should be postmarked no later than December 1, 2014 and sent to:
GENI—GAW BOOKMARK CONTEST 2014
IUPUI-Geography CA 213
425 University Blvd.
Indianapolis, IN 46202-5140

Contest for students of Indiana schools/home schools only.

All questions should be referred to Nancy Wolfe at geni@iupui.edu. Contact the GENI main office if you have trouble downloading the template (317) 274-8879.

Sponsored by the Geography Educators’ Network of Indiana
2014 Indiana Geography Awareness Week Bookmark Contest

Celebrate Geography & the Future of Food

*Note - your image can be either horizontal or vertical. The final print version will be 2 inches by 8 inches. Avoid small print.*

Description of artwork: ______________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Name ___________________________ Grade ______ School __________________________
School Address _____________________________________________________________ City __________________ Zip________
Teacher’s Name ____________________________ Teacher’s Email____________________

If you need more room for the description, feel free to attach another page. Please do not fold. Submit all entries flat. Multiple entries can be in one envelope. Postmark deadline is December 1, 2014.

Mail entries to GENI-Bookmark Contest, IUPUI-Geography CA 213, 425 University Blvd., Indianapolis, IN 46202-5140.

http://www.iupui.edu/~geni http://education.nationalgeographic.com/education/collections/geographyawarenessweek/?ar_a=1
Visit the “Geo-Spatial Technologies for Indiana Educators and Students” website for resource ideas and classroom curriculum possibilities at http://www.iupui.edu/~gst
The Indiana International Festival, November 20-23, 2014, to be held at the Indiana State Fairgrounds;

Thursday and Friday, 10a-2pm are student days

Friday, 3:00 p.m. is a Naturalization Ceremony

Friday evening through Sunday evening is public days

Educational, great food, interesting performances, good shopping

Giant Traveling Maps of North and South America and Indiana

Linked to the Indiana Social Studies Academic Standards grades 6-12

http://www.familyevents.com/events to order tickets and find additional information.

From the Nationalities Council of Indiana:

The 38th Annual INDY INTERNATIONAL FESTIVAL is central Indiana's oldest and largest pan-ethnic celebration! The International Festival is the signature event of the Nationalities Council of Indiana, showcasing Indiana's ethnic diversity, celebrating our unique ethnic traditions, and encouraging cultural exchange.

The INTERNATIONAL FESTIVAL will feature exhibits from the 50+ ethnic groups represented in Central Indiana as they gather to share their rich cultural histories and traditions. Highlights of the festival include authentic foods from 20+ ethnic vendors; continuous ethnic music and dance by local and national performing groups; Culture Booths hosted by volunteers in traditional dress where you can connect with your own ethnic heritage; artisans demonstrating unique cultural crafts; a Naturalization Ceremony and an International Marketplace offering gifts from around the world.

Additional Features:
GIANT, WALK-UPON Map of North & South America hosted by Geography Educators' Network of IN
Italian Street Painting
International Beer & Wine Garden
Tudor Rose Players
<table>
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<tr>
<th><strong>NCSS Notable Trade Book Title:</strong></th>
<th>Knudson, Michelle (2005). <em>Carl the Complainer.</em> New York: The Kane Press. (Appropriate for use with Grades 2 – 3.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Book Summary:</strong></td>
<td>Carl complains about everything. His friends challenge Carl to stop complaining and do something to improve the situation. Soon, Carl identifies a cause and circulates a petition.</td>
</tr>
</tbody>
</table>
| **NCSS Standards:**              | X. Civic Ideals and Practices  
IV. Individual Development and Identity |
| **Materials:**                   | *Carl the Complainer*, computer and projector, printer, envelopes, examples of persuasive writing (see Web Links, below) |
| **Objectives:**                  | Students will:  
* Define citizenship and identify key ideals of a participatory citizen  
* Explain actions citizens take to influence public policy  
* Identify an issue needing resolution  
* Write a persuasive letter about the identified issue |
| **Procedures:**                  | Find out what students know about participatory citizenship by asking questions such as:  
* What does it mean to be a good citizen?  
* How do good citizens behave?  
* How do citizens solve problems in their neighborhood?
| Exploration/Introduction: | Show the book cover for *Carl the Complainer*, and invite students to predict the plot. Ask students to listen for examples of good citizenship as you read aloud.  

After reading the book, engage students in discussion by asking:  
* Why did Carl’s friends call him “Carl the Complainer”?  
* What is the difference between “complaining” and “informing”?  
* How did Dale help Carl solve his complaint about the park?  
* What other ways could Carl and friends use to convince the town council to keep the park open later? |
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<td>Development:</td>
<td>Invite students to brainstorm problems at school or in the community that need resolution. List and display these.</td>
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<td>Expansion:</td>
<td>Students may work in groups to develop a persuasive letter to address a problem of their choice (see above). Also see websites (below) for strategies on teaching persuasive writing, if needed.</td>
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| Assessment: | * Did students comprehend differences between complaining and informing?  
* Were students able to identify one or more behaviors related to participatory citizenship?  
* Did students’ letters present possible solutions to identified problems? |
| Suggested Extension Activities: | When students complete the final drafts of their letters, provide an envelope to each group. Invite students to address envelopes to the appropriate person/group. Mail letters and discuss possible outcomes. |
## Additional References and Web links:

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<td><a href="http://www.teachervision.fen.com/tv/printables/read_3_U6_WP2.pdf">www.teachervision.fen.com/tv/printables/read_3_U6_WP2.pdf</a></td>
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As with most contemporary non-fiction, I began reading this book from the back. While this book does not contain Author's Notes, it does contain Acknowledgements. These are segments children's authors have begun incorporating in their books to explain their various sources and research strategies. In his Acknowledgement, Freedman talks about Millie Lee, the librarian who urged him to write about Angel Island. While the details in the text of the book are important, this often overlooked material helps young scholars to realize that research is not just a classroom activity; that it can lead to fascinating discoveries in real life. It helps them understand the process others use in writing books and may lead to a greater interest in reading.

This material at the back end of the book is relatively new to nonfiction books as is writing in a tone that is more like a story. Rather than writing informational text that delivers bland facts, Freedman delivers an engaging story about the place of Angel Island in our history. Documentation for his work also lies in the rear of the book.

Angel Island is the largest Island in San Francisco Bay. It began is hunting and fishing ground for the Coast Miwok Indians that was taken over by Spain, then Mexico and then the United States. It became an immigration gateway in 1910 and was almost burned to the ground in 1940.
The Gold Rush of 1848 drew prospectors from all over the world to California, including from China. Their presence quickly flamed racism, segregation and intolerance from Americans. Freedman handles these issues well by using factual language to describe laws and events meant to suppress Chinese workers. His explanations of how the Chinese reacted serves to empower them rather than to highlight them as victims. It’s very eye opening to read how laws such as the Geary Act of 1892 were enacted specifically against the Chinese who came here for the same reasons as most of our ancestors. Until 1943, Chinese immigrants could not apply for U.S. citizenship. Very little of the facility remains today, but existing buildings have become a museum.

Well-placed photos document the author’s discussion of areas used for medical examinations thus bringing students to a deeper level of understanding. While the material is written at a 7.6 grade reading level, it presents enough detailed information to be satisfying to high school students who are studying immigration, California history, the Gold Rush, citizenship, Chinese American history or racism.

*Teaching Social Studies To English Language Learners* is part of the Teaching English Language Learners Across the Curriculum series. The book is written to provide teachers of grades 6-12 with practical methods that will help with English Language Learners (ELLs) if not all students. The book, which is divided into three parts, does not have to be read in its entirety to help educators but reading the entire book will provide a more comprehensive understanding of ELL theory and practice and vignettes are often used to make ideas more concrete. While parts of the books have differing authors, all deliver the warning that not all ELLs are the same is repeated throughout the book. Teachers have to realize that students whose first language is not English have different cultures, different levels of English instruction, different levels of first level literacy and different gifts and talents. In realizing these differences it’s important that we avoid stereotypes particularly the one that says ELLS want to sit quietly in the back of class to avoid embarrassment. Learners increase their academic literacy by becoming more proficient in classroom language. This only happens by involving them in classroom activities.

The first part, “Your English Language Learner”, begins with 5 principles for creating an effective language acquisition instruction. English for Speakers of Other Language (ESOL) programs differ all over the country with each using different strategies and resources. While some social studies teachers will not find this information practical enough, others will be able to better understand the structure in their local school district and have a better idea of the support available to them. Strategies
and resources are provided in this part that include concrete examples of how to work with the parents of ELL students.

The second part, “Principles of Social Studies Teaching and Learning” begins by addressing methods for teaching social studies and moves into research focused on ELLs in the social studies classroom. With little research on teaching ELL students in the social studies classroom, the authors rely heavily in research by D. J. Short in the 1990s. His work concludes that teachers should build content that leads ELLs to know the content, know English and know how to do their work. Research based methods are presented on how to achieve each of these goals.

The bulk of the book is in the third part, “Teaching Social Studies” which provides learning activities and lesson ideas for the various social students content areas. The ideas shared include the implementation of bilingual dictionaries, political cartoons, visual aids, realia and primary source documents, Total Physical Response (TPR), word walls, stratified questioning techniques, interpreting graphs, modifying texts, picture books and addressing culturally sensitive pedagogy.

I wish I’d had this volume when I was teaching Social Studies. It’s beneficial to educators both as practitioners and researchers. While there isn’t a heavy amount of research in the book, there is enough to validate the ideas presented and to guide those researching this area to seminal works. The language is clear and almost conversational in tone. While I liked learning the basics of ELL instruction, I know other educators will enjoy how practical the information is. This is a valuable resource that should be in all school library professional development collections where there is a population of English Language Learners (ELLs).