GPS Mapping & Community Development
SMETHPORT, PENNSYLVANIA

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GPS Mapping Development

- Low impact
- Low cost
- Low maintenance
- High usability
- Multiple applications (tourism, education, advertising)
- Innovative

Project Overview

Study Area - Smethport, Pennsylvania
PROJECT PROCESS

Project Overview

**GPS**
- Points of Interest

**Tutorials**
- How to map trails and points.
- How to upload content.
- How to maintain and expand the application.

**Application**

**Content Generation**
Mapping Area – Smethport, PA

- Public trail network
- Community Park
- Downtown walking tour
- Handicap accessible trails
- Community support infrastructure
- Historic and natural features

Previous Research Findings On Smethport
• EDUCAFellnigl Android Programming
  Relationship Students

Anthropology and Education students learn to use GPS technology together. Android Programming students participated in hands-on hiking/mapping sessions.
Partnerships

- Allegheny National Forest Visitors’ Bureau
- Potato Creek Trail Association
- The Town of Smethport, PA
- Smethport Area School District
Site Selection & Categories

Historic  Commercial  Natural
Methods of Data Collection

Mapping Trails

Wolfinger Trail System
Goose Chaser Trail

Smethport School Trail
Mansion District Tour
Methods of Data Collection

Archival Research

- Smethport Mayor
- McKean County Historical Society Member
- Trail Association Members
- Mansion District Home Owners

Key Informant Interviews

- Library of Congress Information
- Smethportweb History Resources
- McKean County Historical Society
Local Business Surveys

- Useful information on local businesses:
  - Hours of operation
  - Products
  - Phone numbers
  - Mapped locations
Trail User Application

Android/IOS mobile applications designed for Smethport, Pennsylvania

Resulting Application
Robert King Mansion

This Georgian-Italianate style mansion was built in 1859 by Robert King, a local surveyor and mapmaker. Robert King was a descendant of Francis King, who surveyed and laid out the town of Smethport in the early nineteenth century. Notable features of this house include the large wooden beams held together by wooden stakes and the Georgian Federal-Hipped roof with a Mansard roof addition. The home still holds much of its original architectural integrity and remained in the King family until 1958.
Social Media & Integration

The native apps will allow sharing trails and trail markers on popular social networks.
Continuous Participation Platform & New Demographic Reach

Facebook Users Reached Per Week

Gender and Age:
- Female: 61.7%
  - 13-17: 40.4%
  - 18-24: 14.9%
- Male: 36.2%
  - 13-17: 12.8%
  - 18-24: 19.1%
UNIVERSITY OF PITTSBURGH BRADBURY
EDUCATION DEPARTMENT - LESSON PLAN FORMAT

NAME OF STUDENT TEACHER: Rachel Britton, Janelle Gilmore, Meagan Little
SCHOOL: Smethport Area School

LESSON SUBJECT / TOPIC: ___________________________ GRADE LEVEL: ______ 3 ______

1. OBJECTIVES:

   ■ A) SWBAT analyze a dead tree log, collect information, and compare and contrast prior knowledge to new information about the dead tree log and its lifecycle.
     - PA Standard 3.1.3.A3: Illustrate how plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.
     - Anchor: S3.B.3: Ecological Behavior and Systems
       - Descriptor: S3.B.3.1: Identify and describe living and nonliving things in an ecosystem and their interactions.
       - S3.B.3.1.1: Identify the living and nonliving components of an ecosystem (e.g., living [plants, animals]; nonliving [water, soil, air]).
       - S3.B.3.1.2: Describe the interactions between living and nonliving components of an ecosystem (e.g., plants [water, sunlight]; animals [air, shelter]).
     - Bloom’s Level: 2, Understanding

   ■ B) SWBAT collect and analyze data about a specific part of the tree lifecycle, after viewing a PowerPoint containing information, in a group, in front of the class.
     - Common Core Standard: CC.1.2.3.C: Explain how a series of events, concepts, or steps in a procedure is connected within a text, using language that pertains to time, sequence, and cause/effect.
     - Anchor: No Anchor
     - Bloom’s Level: 4, Analysis

Promoting Education
Student-led Research
Place-Based Learning
GPS-Based Lesson Plans, Community Social Vitality
Establishing a Legacy

Community Ownership
- Maintain
- Update
- Expand Digital Maps

Tutorial Workshop
- Teach mapping to the Smethport Community/Leadership
- Coordinate Point Expansion and Modification
- Data Collection & GPS Technologies
Next Steps:

- Evaluate Project Success
- Map Additional Towns

Continuation