Using New and Emerging Technologies to Promote Appalachian Tourism

The University of Tennessee

Dr. Janet Nelson
Associate Vice Chancellor for Research
UT Knoxville Office of Research
1534 White Ave.
Knoxville, TN 37996-1529
Phone: (865) 974-3466
Fax: (865) 974-7400
Email: research@utk.edu

February 2014 – June 30, 2015

June 3, 2015

Dr. Tim Ezzell
Research Scientist
Department of Political Science
University of Tennessee
Suite 311, UT Conference Center
Knoxville, TN 37996-4134
865-974-9036
tezzell@utk.edu

PROJECT FOCUS: This year's UT ATP class will evaluate potential uses for new technologies, particularly those related to smartphone use, to promote Appalachian tourism at the local level.

PROJECT DETAILS:

Course Number, Name, and Instructor:

Course Number and Name: Sustainable Communities, PS 410 and PS 595 (graduate and undergraduate sections)

Course Faculty: Dr. Tim Ezzell

Community Partner: Johnson County, TN, Mountain City, TN, and the Johnson County Chamber of Commerce.

Need: Working with our partner community, students in the class will assess the potential of Near Field Communication (NFC) and other recent and emerging technologies to help promote local Appalachian tourism.

Number and description of planned meetings with the community partner (meetings are a required component of the ATP):

Students will be meeting with local stakeholders throughout the semester as they conduct the following tasks:

- Introducing the project to local stakeholders and establishing a project timeline (August-mid-September)
- Working with community members to identify tourism resources and priorities (September-early October).
- Working with local stakeholders to determine a project dissemination strategy (October).
- Conducting a follow-up assessment with local participants to determine successes, barriers, and lessons learned (mid to late November).

Overview of the project: According to the Pew Research Center, 64 percent of Americans now own a smartphone.[1] The increased use of these devices, which has grown exponentially in just a few years, has transformed the way Americans

[1] Pew Research Center, "Mobile Technology Fact Sheet," http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/

shop, learn, and interact. Not surprisingly, they also have had a profound impact on the way Americans travel as well. As a result, cities and tourism stakeholders are adopting new ways to utilize this technology to improve their businesses and the visitor experience.

This year's UT ATP class will examine ways to help small Appalachian communities benefit from this technological revolution. In particular, they will evaluate the use of Near Field Communication (NFC) technologies in promoting local businesses and tourism resources. NFC is a technology that allows smartphones to retrieve or exchange information with posters, tags or other phones over distances of less than 4 inches. By touching a smartphone to an NFC tag or device, users can make purchases, download information, or connect to a website.

NFC systems are increasingly being used by tourism industries in in Europe, Australia, and other countries. NFC tags, for example, are used to interpret sites or walking tours or to let visitors know about nearby shops and restaurants. Many times, they are used in conjunction with QR codes, which are more common but less versatile (see figures 1 and 2). NFC adoption, however, has been slower in the United States. In fact, while most US smartphones are NFC equipped, they usually come with the technology turned off by default.[2]

Figure 1: An NFC walking tour tag from the UK[3]

[2] Juho Pesonen and Eric Horster, "Near Field Communication Technology in Tourism," *Tourism Management Perspectives* (2012, Vol. 4).11-18.

[3] Sarah Clark, "South Downs Way gets NFC sign posts," *NFC World,* January 11, 2013.

Figure 2: Tourists using NFC tags in South Africa[4]

The students will work with stakeholders in Johnson County, Tennessee to test these technologies. Students will develop a network of "smart markers" for the town to convey information about local sites and business to visitors. Using lessons learned from this case study, the students will develop recommendations and guidelines to help similar communities develop their own systems.

Goals and Objectives: The project will address ARC priorities in the following ways:

- It will increase job opportunities and per capita income in Appalachia to reach parity with the nation by promoting tourism in an economically distressed community.
- It will strengthen the capacity of Appalachian people to compete in the global economy by introducing tourism technologies used in other countries.
- It will develop and improve the region's infrastructure to make the Region economically competitive by introducing a new form of digital tourism infrastructure.

PROJECT OUTCOMES:

[4] Karl Dyer, "South African travel show reports 60,000 NFC uses per day," *NFC World,* June 10, 2013.

- Students will develop a better understanding of Appalachian assets and the challenges facing Appalachian communities.
- Students will develop a working partnership with stakeholders in Johnson County, TN.
- Students will develop media and draft materials related to project goals and technologies.
- Students will develop recommendations and guidelines to assist other rual communities.
- Students will present these findings at the ATP meeting in Washington.
- Students will prepare and display a poster at the ATP conference in Washington.
- Students will also present findings at another venue. Possible venues include a local community organization, the Appalachian Studies conference or the Tennessee American Planning Association Annual Conference.

BUDGET

Appalachian Teaching Project 2015-2016: Using New and Emerging Technologies to Promote Appalachian Tourism

Travel	
Round-trip airfare to Washington for 5 student ($250x5)	1250
Round-trip airfare to Washington for Dr. Ezzell	250
Washington lodging (3 rooms x 3 nights @ $150)	1350
Per diem for Dr. Ezzell (4 days @ $71)	284
Student travel stipends (5x200)	1000
UT minivan travel to Mountain City (240 miles x 2 trips @ .48)	230
NFC tag reader/writer	70
NFC tags and supplies	66
Total Costs	4500