CHAPTER VII

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Conclusions

This research has shown that the co-evolutionary perspective and recombination: actor-network theory are useful in examining the two phenomena of the Internet and nature tourism. These perspectives not only provide a solid theoretical basis for research such as this, but they also provided guidance for designing and conducting the research.

The co-evolutionary perspective provided a means to understand the linkage between the evolution of nature tourism businesses and the evolution of the Internet. The Web is shaping how nature tourism businesses conduct their businesses. The nature tourism businesses using the Web in turn are shaping part of the Web by adding or removing sites, creating virtual communities through links, and by how they present their places on their Web sites.

Actor-network theory provided a framework for this research to examine the relationships between the nature tourism businesses and the network where they operate their businesses. In the context of this research, the actors are the nature tourism businesses (ICSs). The network is the combination of human and non-human factors that affect the performance of the actors, such as state policies and programs, possession of Web technology, and the linkages between the nature tourism communities. Actor-network theory identifies two primary components in a network that affect the

performance of the actor, the technical and non-technical components.

As identified by Latour (1987), examining the network should be accomplished by following the "actors" in the network. Following the actors in this research began by locating the actors (the nature tourism ICSs) via the search engines on the Internet (the network). Their geographical locations were identified by collecting their physical business locations and the locations of where the Internet content was being hosted (ICB). Their activities were examined in detail with the online survey and case studies. The following conclusions are made based on the interpretation of the research results with these two theoretical perspectives.

1. The co-evolution of the nature tourism businesses and the Internet has created new cyberplaces.

The co-evolutionary process identified in this research demonstrated interactions between the material space and the electronic space in the Internet. The material space is the real world communities represented by these ICSs. The electronic space is cyberspace. These interactions have produced new virtual places that exist as the Internet Web sites of these businesses. On one hand, the Internet has effectively compressed time and space so that these small nature tourism businesses can afford to market their real world places with relatively low cost to more customers over broader geographical areas. On the other hand, the interactions between the electronic space and the real world space have also created new cyber-geographical places in the form of virtual places. These cyberplaces are interpretive presentations of real material places.

2. The nature tourism businesses in the Internet are operating in a cyber geographical space where distance is no longer a barrier for them to market their places.

The results of the distance analysis showed that the range of distances between the ICS and ICB was from 0 – 4714 miles. Only about half (52 percent) of the ICS were found to have their ICB within 50 miles of their business location. These results suggest that nature tourism business owners are nearly as likely to get their Web hosting services many miles from their business locations as they are to use services nearby. This indicates that the distance-shrinking characteristic of the Internet has made it possible for the nature tourism businesses, that exist in the real world geographical places, to market their places over the Internet through hosts that are hundreds and thousands miles away. These nature tourism businesses (ICSs) and their Internet hosts (ICBs) are operating in a cyber-geographical space which has different characteristics than traditional geographical scace. However, evaluating the distribution of distances does suggest that there is a distance decay effect in how far away people are inclined to go to get web hosting services. The results show a significant drop in the number of ICS that find their hosting services further than 250 miles from their business location. If there was no effect there should be an equal distribution across each of these distance categories. This is not the case. This result suggests that there are some physical geographical influences on these ICS's choice for Web hosting services.

3. Rural communities are in the co-evolutionary process with the Internet technology.

Compared to urban areas, tourism businesses in rural areas used to be in a geographically disadvantaged position when advertising their services. However, the results of this research indicate that the rural society is in a co-evolutionary process with Internet technology. The spatial analysis of the locations of the ICS in relation to urban areas, as defined by the U.S. Census Bureau, showed that 93 percent of the businesses surveyed were in rural areas. This result suggests that the rapid diffusion of the Internet has provided rural area nature tourism businesses with opportunities to present themselves to millions of potential customers and become associated with nature tourism communities. These rural communities are using their natural resources to rejuvenate economically in a co-evolutionary process with the expansion of electronic space.

4. The nature tourism businesses on the Web are at different levels of maturity in the co-evolutionary process.

The businesses are adapting and evolving both in how they use the Internet and how they try to be successful with their businesses. They are also learning how to use the Web as a communications medium and to collaborate or link with other businesses. What has been revealed in this research is that these businesses are at different levels of maturity in the co-evolutionary process. This maturity is expressed in three important ways, in relation to:

(1) their businesses,

(2) their familiarity and confidence in using the Web to help them be successful with their businesses, and

(3) how they are affiliated with the nature tourism community(s) that appear to be evolving at a number of scales, including local, regional, and throughout the entire Internet.

5. The nature tourism businesses actors are strongly dependent on the network.

This research has demonstrated that these nature tourism businesses strongly depend on the network of the Internet. This evidence comes from the survey respondents' strong positive responses to the questions about their use of the Internet, their attitudes towards the Internet, and how their Web sites impact their businesses. They suggested that these businesses would not be able to stay in business if it were not for the services that the network (Internet) provides. These impacts were reiterated strongly from the case studies.

6. In general, the nature tourism business actors are satisfied with the resources provided in the network.

Eighty-four percent of the participants in this research were satisfied with their Web sites. Overall, 70 percent of the respondents believed that developing Web sites for their businesses had fulfilled their expectations. Eighty-five percent of these business owners felt that their Web site had helped their businesses' grow. Ninety-four percent of the respondents saw their Web sites as a cost-effective way to promote their businesses. These overwhelming positive responses suggest that these actors are satisfied with their performance in the network.

7. Several technical and non-technical components were identified that affect the performance of the nature tourism business actors (ICS) in the network of the nature tourism businesses on the Web.

The results from the survey and the case studies revealed several important technical and non-technical components in the network that are important to the growth of the nature tourism businesses. The technical components are related to Web site development and general marketing.

The results of the case studies suggests that the nature tourism businesses owners are looking for assistance related to Web site development, including Web site design, Web marketing, and search engine ranking. The case studies also show that the ICS with the highest level of technical experience were the most confident with working within the network.

The assistance needed by these business owners/managers that are related to marketing include: (1) information about how to understand their target markets, (2) marketing "how-to's", and (3) how to develop collaborative relationships with other businesses, such as marketing cooperatives.

The non-technical aspects of this network were identified as important are (1) state policies and programs, (2) affiliations with Web-based communities, and (3) financial assistance. The geographical analysis of the state programs/policies and the locations of the ICS, and the case study interviews provided evidence that states' nature tourism programs have stimulated the nature tourism business development. The other two non-technical components, affiliation with Web-based communities and financial

assistance were identified through case study when the respondents were asked about the assistance they needed.

8. In terms of geographical scale, there are five levels of networks.

The findings of this research suggest that there are at least five levels of networks that exist in this actor-network.

I. The actor and its immediate network. This is the lowest level network although its geographical representation may be extensive. This network is represented by the individual ICS, ICB, the real world community where the business exists, and the natural resources that are being utilized for providing the nature tourism activities, as well all of the related human and non-human factors in the network.

II. The second level networks are the Web-based communities that were identified by the survey and case study respondents. In most cases, these networks are related to the specific geographical region where these businesses are located. These businesses are using the Internet and the network as a means for communication and marketing.

III. The third level of network is associated with a larger scale of community/associations over the Internet and the programs that are being supported by the various states. This level is also associated with geographical regions most closely associated with individual states (e.g. the five states with nature tourism programs). This level may or may not be easily specifiable. In some cases, such as Hawaii and South Carolina

there are fairly clear linkages between the businesses and a coordinating Web site. For Texas, however, there does not appear to be a single identifiable presence that ties the nature tourism businesses together. The Texas state-level network appears to be very loosely affiliated and is more difficult to identify definitively.

IV. A fourth level of community is created by individual ICS. This level of networks can have very broad geographic reach. This level appears to be quite similar to the second level networks because they are created by individual ICSs. The case studies revealed that the more mature business owners recognized another level of Internet community that went beyond geographical boundaries. They suggested that the creation of links between themselves and many other businesses and organizations with a broad spectrum of affiliations was critically important to their businesses' success. These affiliations or Web-based communities may or may not be directly related to their nature tourism business. These affiliations could occur almost anywhere around the globe. Nonetheless, these virtual communities were defined to be a part of their business realm. These communities can be identified by the links from these businesses Web site and very likely have a very diverse and potentially large geographic scale.

V. The final level of network is that of the whole of nature tourism businesses on the Internet. This level of network is the most loosely defined. This is because it is in a state of continual change. New nature tourism businesses will continually be created, Web pages will be updated, new linkages will

be added or dropped and the whole network is in a constant state of evolution.

Policy Implications for States, Regions, or Communities Interested in Nature Tourism Development

The results of this research indicate that nature tourism development efforts have been successful in stimulating businesses around the nation. The survey and case study components of this research revealed that there is a variety of programs, or initiatives, that are behind these groups of businesses that are clustered around the nation. Therefore, developing programs or policies to promote nature tourism at different levels can help create nature tourism opportunities.

Another finding of this research is that these nature tourism businesses still need assistance. A number of areas of assistance were identified in the case studies. The kinds of resources they identified would not require significant efforts to develop. Three specific short-term initiatives could be:

1. Establish or stimulate mechanisms for coordinated and cooperative marketing for communities, counties or regions.
2. Coordinate and develop ways to provide technical assistance for general marketing and Web marketing to regions, communities, and individual business operators.
3. Create a resource center designed to provide information about these areas of need and information about Web site design and development.

Limitations and Recommendations for Future Research

As was expected, this research has revealed that the Internet poses serious challenges to survey research that would hope to be statistically representative of a population of Web sites on the Internet. Two major issues were identified. The first is whether using search engines and traditional Web searching techniques can locate a representative sample. The second is whether there is a certain type of business that is more likely to respond to the survey (e.g. more mature or smaller businesses). This research only used descriptive statistics because of these issues. In any case, these results should not be generalized to the total population of nature tourism businesses using the Web.

Related to these issues, three items should be given careful consideration for future research.

1) How to find a large number of Web sites for conducting a survey.
2) It appeared that most businesses that were invited via email to participate in the research did not even open their email invitation, thus, serious consideration should be given for how to stimulate more interest to an email message.
3) Whether there is a bias in the types of businesses who respond to research such as this should be taken into consideration.

This research has shown that actor-networks (Web-based communities) are forming around the nation in association with nature tourism businesses. This research has made a first attempt to identify and understand this network. However, the scope of this research did not allow a detailed analysis of the actions of specific participants within the network. Latour (1991) described an involved process of following all of the activities

of an actor over a period of time. Therefore, in order to get an in-depth understanding of how these nature tourism businesses and their use of the Web are co-evolving, future research should identify a network of nature tourism businesses using the Web at the local or regional level and rigorously "follow the actors" over a period of time.