

Sustainable Development via ICT-enabled e-Travel

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Summary

Existing technology, information content, and management practices can be better integrated to support sustainable e-travel, and related e-business, in the region. Reasonable extensions to capabilities and content could greatly empower such ICT-enabled e-tourism.

Background

Asia and the Pacific are Richly Endowed with Sustainable Travel Destinations

Almost every country in Asia and the Pacific is richly endowed with offerings in cultural, eco-, and adventure tourism. Archaeological, cultural and historical sites; natural parks, nature and bio-reserves, zoos; dive/snorkeling sites, other watersports, bicycling, hiking, trekking, village and farm stays, scenic drives, are all on hand. Many of these sites have benefited from considerable investments; these and others might benefit from increased interest and revenues associated with them. Yet many sites are less well visited than they could be were knowledge about them more widely accessible and usable.

Community Residents Benefit from Sustainable Capitalization

Rural, small community, even large urban poverty alleviation can benefit from sustainable capitalization in human, infrastructural and financial resources. Sustainable tourism, or travel that supports rather than depletes long-term sustainability of an area, has been recognized as one useful means for capitalization of areas. Tourism that capitalizes local residents, at least as much as it provides opportunities for investment by outsiders, is a goal of some sustainable tourism supporters. Many countries have tourism development activities pursued by governmental and other organizations. Yet there is considerable room for improved usability of information by potential travelers, and improved planning and other resources supporting both sustainable tourism and increased possibilities and prosperity for rural and town residents.

Many ICT Tools and Applications Currently Support e-Travel

In some environments, one may plan and book travel,¹ accommodation², things to do,³ learn about and book pastime events,⁴ join groups or individuals for travel companionship, find travel books and other information resources, map,⁵ learn at least the rudiments of local languages. One can do this by interacting with Web resources, contacting Web-based or other travel authorities and agencies, being introduced to individuals living almost anywhere.

Thematic and geographic querying and retrievals are available in varying forms. Web search engines allow one to search on country, district or other geographic area plus subject matter such as diving or national parks. Data base management systems enable hotel feature searches such as the existence of swimming pools, child care, or promotions. Web tools support customer reviews of hotels promoted on hotel booking bots, providing a measure of consumer support against possible misleading information (e.g. outdated photos taken just after renovation, but not necessarily reflecting the current condition of a hotel) provided by hotels. Virtual tours are becoming more common on the Web. Geomatics

¹ For example, air, rail, bus, cruise, ferry, rental car.

² E.g. chain or local hotel, guest house, homestay, bungalow or campsite in national parks.

³ E.g. add-on dive/snorkel packages, other watersports; barge tours, treks, bicycle and equipment rental, university programmes, lessons in cooking, language, and others.

⁴ E.g. concerts, films, galleries.

⁵ Including customized maps and travel itineraries.

capabilities can deliver customized maps, routing plans with estimated drive times for drivers, and satellite imagery even to the community level. Software capabilities are much greater than current applications demonstrate, partly due to current market forces (or perceptions thereof), partly due to availability (or lack thereof) of certain data.

Strategic Design and Integration of Such Services Can Benefit Countries Now

A Vision: The Ministers of Rural Development, Tourism, and Information and Communication Technology meet for lunch. The Minister for Rural Development laments that so many areas of historic and cultural interest, and of natural beauty with potential for eco- and adventure tourism, languish with nearby villages impoverished with little development. At the same time, biodiversity is decreasing, elephants put out of work by logging bans are becoming an endangered species, yet South Africa can re-convert intensive agricultural land into the world-class Pilanesberg National Park “game reserve” tourist attraction bringing jobs to many people. *How to sustainably develop rural areas, bring good jobs to local people, and reduce rural-to-urban migration?* The Minister for Tourism laments that tourism potential in rural areas often sits untapped until outside investors propose building a large hotel in the community – offering jobs (but these actually are mostly low level jobs like cleaning tables – as the managers, technicians and others are brought in from cities) and economic development (but this is according to their outside model, not in harmony with community values) – with many communities being lost to insensitive overdevelopment in the Pattaya-Patong model. How to link tourism with local development, rather than forcing local communities to compromise between their heritage, and losing that heritage by allowing outside business interests to pave over such heritage in the name of (low-paying) “jobs?” The Minister for ICT notes that the Web has allowed rural guest houses, modern tourism (eco-, soft- and hard-adventure, cultural and historical) to be marketed to tourists in new ways. He proposes developing programming for local communities, perhaps using the facilities of the Distance Learning Foundation and even commercial stations, to increase rural community awareness of the potential. He also proposes sending mobile Internet labs to villages with potential for local development, to conduct seminars, encouraging communities to establish their own cooperative business support centres to help develop guesthouses, bicycle rentals and tours, soft adventure like elephant rides and rafting, and marketing of rural products, on a coordinated Website for the village – linked to portals like Virtualtourist.com, Tripadvisor.com, Wikitravel.org, and World66.com. The lab has been developing expertise, and can offer developmental services, in (1) interviewing local people about their hopes for development, (2) guiding them to develop marketable business concepts that are in harmony with community desires, (3) obtaining inputs from them which the lab staff can turn into exciting Web content about the communities, and (4) linking the communities with NGOs that might help to extend use of the Web, and the development of SMEs, for culturally sensitive and supportive e-tourism resources.

The Ministers for Rural Development and for Tourism agreed that this idea could be valuable, and proposed a meeting between technical, policy, and budget specialists to see if they could develop a road map that could make them all stakeholders in the success of such an approach. They agreed that this was worth partnering between government, university, NGO and tourism related Web developers. They also agreed that, if they could agree on an approach, such an approach might be useful to many other countries, not only in Asia.

Another Vision: Imagine Hans and Yoko, a couple living in country K who are planning their 4 week vacation. They would like to blend visits to beautiful national parks, archaeological and cultural sites, participate in soft adventure tourism like snorkeling, cycling or hiking, visit one or two villages where noteworthy crafts are produced and perhaps purchase some crafts directly from the maker. International-style chain hotels are acceptable on a limited basis, but they would prefer to stay in modest but nice, clean guest houses in rural areas that are a bit spacious and quietly located (but within walking distance of dining and transport options). Swimming pools would be nice, where such did not compromise other priorities on style of accommodation. Though they do not want to spend much time

in major cities, a few days at both ends of their trip, and perhaps one other city visit during their month would be nice. They prefer to travel mostly by public transport, with perhaps one week or two weekends of car rental where that rental car could uniquely provide them access to a star location. They would like to avoid the need to hire guides in most locations, but would like to have books (or .pdf files) of information handy for reference while they travel. They would like some of the trip to overlap with an itinerary being planned by Sasha and Joseph. Hans and Yoko speak German, Japanese, English, and a bit of Spanish, French, and Chinese. They visit the Website of www.sustainabletourismasiapacific.com⁶ and fill out an online questionnaire on their requirements and preferences. Working interactively with the Website, they choose locations, semi-detailed mixtures of eco-, cultural and adventure tourism, and tentatively plan additional aspects of their trip including likely preferred restaurants as well as nightlife while in cities. They book flights, inland transport, accommodations, and some key tours. They download reference materials, including a customized travel guide that is a highlight feature of this Website. That guide consists of chapter modules that cover thematic and geographic aspects of their trip, including details of specific national parks, islands, archaeological sites, and nature reserves that they plan to visit. Customized maps and routing directions were provided, giving the couple a full itinerary of flight times, timetables for legs by train and bus, maps for routes planned to be taken by rental car. E-tickets for flights, booking numbers for other reservations were provided. Train and bus tickets were awaiting them when they arrived at the appropriate stations. The travel guide was a combination of sale products from commercial publishers and public information from governmental and NGO sources. They paid a modest price for the book, while some costs were subsidized by advertisers on the site (including accommodations that they eventually booked).

Beyond this, Yoko and Hans' answers to www.sustainabletourismasiapacific.com's questionnaire revealed that they would like to stay in modest guest houses that also have swimming pools, would have liked to rent bicycles in locations A, B, and C, and would like to be able to get by in German, Japanese, or English in several quite rural localities. Tourism and rural developmental authorities, micro-credit agencies and NGOs, took this information to guide strategic development in those communities. They also arranged for a guest house to acquire bicycles for rental to Yoko and Hans, thus immediately enhancing the tourism infrastructure for the community, and quickly satisfying customer desires.

Yoko and Hans realized upon their return that they had forgotten to buy gifts for several friends. No problem. They visited www.sustainabletourismasiapacific.com's marketplace, and placed orders for crafts, from craftspeople that they had visited. The crafts were personalized in some cases (e.g. names added to handmade parasols), and shipped directly to the friends, who were delighted. Likewise, the village craftspeople were now globalized SMEs, selling directly to customers anywhere.

Thus improved integration of currently available capabilities, populated by data not much different than is currently available on the Web or other media, can greatly help travelers and tourists plan visits to the region. In addition, the system described above also provides information to assist further sustainable development of support services, thus helping to capitalize communities in the region.

Moving from the Current Situation to such a Goal

Currently, several websites that could support sustainable tourism lack content, while valuable prototypes are sitting on developmental sites (or at non-instinctive websites like www.phimai.ca). Some capabilities (such as Web booking for green buses in Chiang Mai) may be in early development, but could be more robust (and have more users) if they were assembled into a Web environment that combined all available resources for tourists, tourism industry SMEs and other businesses, and relevant developmental bodies/objectives.

⁶ Fictitious as this is drafted.

The draft road map below sketches some steps and considerations toward such a goal.

Draft Road Map to ICT-Supported Sustainable e-Travel

1. Inventory existing Web content for a representative prototype area. The inventory might look for content from governmental tourism departments, hotels, resorts, restaurants, tourism-related companies (dive operators, adventure tourism companies), small and medium-sized manufacturers of interest to tourists (furniture, crafts, clothes, artists). Supporting Websites, such as Web mapping, providers of image maps to help tourists envision an area better than the usual rough tourism maps, are an asset. Inventories can be made by studying sites such as those listed and linked to below.
 - Hotel bots such as hoteldiscount.com. For Thailand, “anyone” can use the r24.org back-office wholesaler to design and promote a retail hotel booking Website. Google lists others at <http://directory.google.com/Top/Recreation/Travel/Lodging/Consolidators/>
 - Travel sites (www.travelocity.com , www.bookingbuddy.com), railway (such as www.ktmb.com.my) and bus (www.greyhound.com www.eurolines.com) and boat (<http://www.trasmediterranea.es>).<http://directory.google.com/Top/Recreation/Travel/>
 - Travel geomatics sites such as www.mapquest.com and www.multimap.com and maps.google.com
 - Environmental tourism (<http://gorp.away.com/gorp/location/asia/asia.htm>),
 - Ecotourism (http://directory.google.com/Top/Recreation/Travel/Specialty_Travel/Ecotourism/),
 - Archaeology (http://directory.google.com/Top/Recreation/Travel/Specialty_Travel/Archaeology/),
 - Adventure and Sports Tourism (http://directory.google.com/Top/Recreation/Travel/Specialty_Travel/Adventure_and_Sports/),
 - Culture and Heritage Tourism (<http://www.google.com/search?q=cultural+heritage+asia&sa=Google+Search&cat=gwd%2FTop%2FRecreation%2FTravel&hl=en>)
2. Inventory appropriate software to enhance in integrated Web information/service environment for the area. Web mapping, a Web-enabled database management system for managing surveys of user desires, possibly an artificial intelligence interface to respond to submitted user survey forms. Open-source tools, such as Mapserver facilitate extending the approach, and adapting it to desires of increasing numbers of partners (as more organizations join the effort, and/or the effort expands to other areas).
3. Design a multi-tool system for the area. Include in the design appropriate interfaces between DBMS, geomatics, other Web tools like on-line books and pamphlets. Interfaces with users, developers, and between the tools themselves should be included in the design.
4. Steps 1, 2 & 3 might be initiated by an enabling organization. However, at some early point other stakeholders⁷ should be included. Selection of systems should partly be based on (1) desires for style and substance of included content, (2) desires for supporting local software and content development for at least some components of the system, (3) possible desires for adaptation of software for specific components of the system. Such selection would also be dependent on desires for enabling features, such as designs of questionnaires, and processing of questionnaire results for use by planning and developmental personnel.
5. Worthwhile background considerations might include how to maximize the capitalization of local communities (as an alternative to offering the community to outside investors merely as a conducive environment for traditional multinational resort development with beautiful location and cheap labour).

⁷ These could include rural development officials, antiquities, cultural, environmental, parks, and other organizations in national government, local government, and community groups including enabling non-governmental organizations, chambers of commerce, existing tourism business.