

[ITID.12.3.Reg-4.ID1430.FORUM.4-27-16.ms]

## FORUM

### **eTourism for Development (eT4D): The Missing Piece in the ICT4D Research Agenda**

**Isabella Rega**

**Alessandro Inversini**

Bournemouth University, UK

*Keywords: ICT, tourism, eTourism for Development*

This forum article states the need for information and communication technologies for development (ICT4D) scholars to start exploring a new area of research and practice at the intersection of tourism studies, development studies, and information and communication technologies (ICTs). In fact, tourism, as an intervention domain, has been neglected by the ICT4D community; however, its potential for socioeconomic development cannot now be overlooked because of its possibilities in terms of disintermediation and marketing offered by ICTs (Law, 2009), even to micro and small players (Spencer, Buhalis, & Moital, 2012).

Tourism is considered a potential strategic driver for economic growth (e.g. Blake, Arbache, Sinclair, & Teles, 2008): It can generate new businesses, improve infrastructures and services, foster preservation of the natural environment/landscapes, and help diversify the local economy (Herrero & San Martín, 2012). Despite its advantages, tourism can also have a negative effect on natural resources and hosting communities caused by exploitation by international investors and enterprises (Deller, 2010). Indeed, academia and the nonprofit sectors have traditionally seen tourism in developing contexts as a phenomenon that disempowers local communities and alienates their resources (Ashley, 2009).

Yet, this negative vision is being challenged, thanks to two factors: (1) the intrinsic nature of the tourism industry and its value chain, populated by micro and small players who, together, constitute the lifeblood of tourism (Thomas, Shaw, & Page, 2011) and (2) the rise of ICTs that are reshaping the competitive landscape of tourism (eTourism; Buhalis, 2003) and

---

To cite this article: Rega, I., & Inversini, A. (2016). eTourism for Development (eT4D): The missing piece in the ICT4D research agenda. *Information Technologies & International Development*, 12(3), XXX–XXX.

helping developing countries reach the UN Sustainable Development Goals.<sup>1</sup> The disruptive rise of technology can challenge the supremacy of Western tourism companies (Cater, 1995) and the common vision of tourism as a force disempowering communities and alienating (natural) resources (Ashley, 2009). Local tourism entrepreneurs can access technologies (Spencer et al., 2012) to market and sell their products without intermediaries (Buhalis, 2003; Law, 2009), to create and sustain socioeconomic development for them and their staffs (Ashley, 2009; Inversini, Rega, Pereira, & Bartholo, 2015), as well as for the community and the micro and small enterprises in the value chain (Kirsten & Rogerson, 2002).

Recent case studies run in Brazil's *favelas* (Inversini et al., 2015) and in rural Malaysia (Gan, Inversini, & Rega, 2016) showed the importance of digital technologies in supporting small tourism-based businesses in developing contexts. Local tourism entrepreneurs in the Brazilian *favela* of Rochina use the Internet to promote and manage bookings and are well aware of the importance of the web and social media in reaching tourists. Furthermore, entrepreneurs in Rochina reported the importance of tourism (which could not have happened, according to them, without the Internet) for the local community for two primary reasons: (1) the creation of wealth and employment within the community and (2) the exchange between the slum and the external world, which has two main effects. First, tourists who visit the slum, meeting the people who live their lives there, are helping to lift Rochina's reputation and, second, tourists from all over the world give Rochina inhabitants the opportunity to learn about other cultures and, thereby, open their horizons, even without traveling (Inversini et al., 2015). When looking at Malaysian community-based homestays, the advent of the Internet allowed entrepreneurs to considerably increase their marketing and distribution channels. Nevertheless, the study reported some barriers that prevent homestay owners from exploiting the Internet's full potential for their businesses, in particular, the lack of foreign language skills and the difficulty with operationalizing the booking procedure for this particular type of community-based tourism (CBT) initiative. Due to these two barriers, the flow of foreign tourists is still mediated by third-party distribution partners (Gan et al., 2016).

To summarize, these case studies highlight the role technologies play in raising awareness with regard to small-accommodations businesses, giving global tourists the possibility of making their own room reservations and creating a guest–host cultural encounter. All these factors contribute to empowering micro and small tourism operators while giving them virtual visibility (Spencer et al., 2012).

---

<sup>1</sup> For the Sustainable Development Goals (SDGs), see [https://www.globalgiving.org/sdg/?rf=ggad\\_15&gclid=CJe\\_4ovUr8wCFRVsfgodArMN4A](https://www.globalgiving.org/sdg/?rf=ggad_15&gclid=CJe_4ovUr8wCFRVsfgodArMN4A)

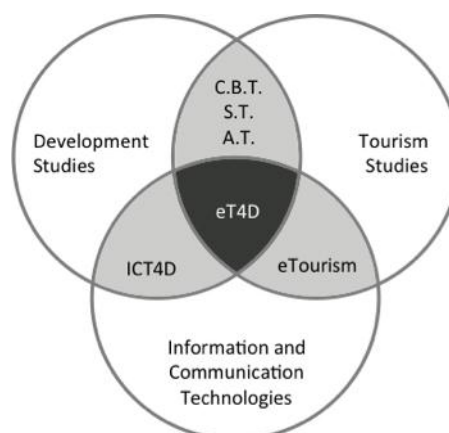
Literature presents an ever-growing corpus of research that investigates the intersection of development studies and tourism studies, focusing on alternative forms of tourism and stressing local sustainability and community development through CBT (Krippendorf, 2010; Murphy, 2012; Sebele, 2010; Sharpley & Telfer, 2014). Similarly, ICTs' role in the tourism sector has received a lot of attention in the last decade (Buhalis, 2003; Buhalis & Law, 2008; Werthner & Klein, 1999), stressing its use to enhance destinations and hospitality competitiveness (Buhalis, 2000; Fuchs, Höpken, Föger, & Kunz, 2010; Gretzel, Fesenmaier, Formica, & O'Leary, 2006) toward disintermediation (Law, 2009; O'Connor & Frew, 2002; Stangl, Inversini, & Schegg, 2016) as well as novel models of communication (Egger, 2013; Sigala, Christou, & Gretzel, 2012; Wang, Xiang, & Fesenmaier, 2014; Xiang & Gretzel, 2010). Likewise, digital technologies are having a strong impact on the development field, where its disruptive rise has been widely explored by academics and practitioners looking at changes in the society as a whole and taking into consideration particular fields of intervention such as health, education, and agriculture (Best, 2010; Brewer et al., 2005; Gomez, Ambikar, & Coward, 2009; Heeks, 2010; Kleine, 2015; Unwin, 2009; Wilson, 2004).

Nonetheless, there is a strong need to better understand the intersection among the three above-mentioned disciplines (development studies, tourism studies, ICTs) through an ICT4D perspective in order to shed light on the possibility of generating local socioeconomic development by empowering CBT enterprises with technology. From a review of the literature, it indeed appears that ICT4D academics are, sadly, overlooking tourism as an intervention field. We reviewed 15 ICT4D journals (Heeks, 2010) up to September 2015, looking for articles with the word *tourism* in the title or in the abstract. We came across only 14 articles in total, 11 of which were relevant to the issue under consideration. Five articles discussed the potential, the perception, and the adoption rate of small and medium enterprises in the tourism sector in a given developing region (Hinson & Boateng, 2007; Karanasios & Burgess, 2006; Mbatha, 2013; Migiro & Ocholla, 2005; Verhoest, James, Marais, & Van Audenhove, 2007), three discussed the need to increase online information and Internet marketing to boost national tourism (Abdullah, 2008; Bahta, 2003; Mokhtar, Mokhtar, Brychan, & Said, 2004), one discussed specific technologies such as web platforms and mobile technologies to connect tourists and rural communities (Payton, Morais, & Heath, 2015), and one referred to the need for ICT capacity building in the sector (Adam & Urquhart, 2007). Surprisingly, only one article focused on the potential of digital technologies in the tourism sector to foster socioeconomic development (Nadkarni, 2008) by stressing the benefits that technology is bringing to pro-poor tourism.

**Table 1. ICT4D Journals and Number of Articles.**

<b>Journal</b>	<b>No. of articles</b>
<i>African Journal of Information &amp; Communication Technology</i>	0
<i>African Journal of Information and Communication</i>	1
<i>African Journal of Information Systems</i>	1
<i>Asian Journal of Communication</i>	0
<i>Asian Journal of Information Management</i>	0
<i>Asian Journal of Information Technology</i>	2
<i>Electronic Journal of Information Systems in Developing Countries</i>	3
<i>Information Development</i>	3
<i>Information Technologies &amp; International Development</i>	0
<i>Information Technology for Development</i>	1
<i>International Journal of Education and Development Using Information and Communication Technology</i>	0
<i>International Journal of ICT Research and Development in Africa</i>	0
<i>International Journal of Information Communication Technologies and Human Development</i>	0
<i>International Journal on Advances in ICT for Emerging Regions</i>	0
<i>Journal of Health Informatics in Developing Countries</i>	0
<i>South African Journal of Information Management</i>	0

In view of the results shown in Table 1, this forum argues there is clearly a need to research the role of digital technologies within the tourism sector to promote community and socioeconomic development as well as from an ICT4D perspective. We refer to this new area of research as eTourism for Development (eT4D). We define *eT4D* as the strategic use of ICTs by community-based tourism firms to foster their visibility, connectivity, and competitiveness, thereby creating local socioeconomic development (Figure 1).



**Figure 1. eT4D conceptualization – CBT: Community Based Tourism, ST: Sustainable Tourism, AT: Alternative Tourism, ICT4D: Information and Communication Technology for Development, eT4D: eTourism for Development.**

ET4D can be considered an emerging interdisciplinary field of study that needs further investigation by the ICT4D community with a twofold approach:

1. Theoretically, by exploring the interplay among development studies, tourism studies, and ICTs and by investigating the impact of ICTs for CBT initiatives in developing contexts leading to socioeconomic development; and
2. Practically, by fostering an effective and professional use of ICTs in these contexts and by enhancing local entrepreneurs' digital literacy skills, thus enabling peripheries to be accessible electronically by global travelers looking for alternative tourism experiences.

**Isabella Rega** is a Senior Lecturer in Digital Literacies and Education at Bournemouth University. [irega@bournemouth.ac.uk](mailto:irega@bournemouth.ac.uk)

**Alessandro Inversini** is a Senior Lecturer in Events Management at Bournemouth University. [ainversini@bournemouth.ac.uk](mailto:ainversini@bournemouth.ac.uk)

## References

- Abdullah, A. H. (2008). A scalable architecture for providing e-tourism to the rural areas using wireless ad hoc networks. *Asian Journal of Information Technology*, 7, 79–82.
- Adam, M. S., & Urquhart, C. (2007). IT capacity building in developing countries: A model of the Maldivian tourism sector. *Information Technology for Development*, 13(4), 315–335.
- Ashley, C. (2009). *The impacts of tourism on rural livelihoods*. Retrieved from <http://dspace.africaportal.org/jspui/handle/123456789/22916>
- Bahta, S. G. (2003). Tourism and tourist information in Eritrea. *Information Development*, 19(3), 203–208.
- Best, M. L. (2010). Understanding our knowledge gaps: Or, do we have an ICT4D field? And do we want one? *Information Technologies & International Development*, 6(SE), 49–52.

- Blake, A., Arbache, J. S., Sinclair, M. T., & Teles, V. (2008). Tourism and poverty relief. *Annals of Tourism Research*, 35(1), 107–126.
- Brewer, E., Demmer, M., Du, B., Ho, M., Kam, M., Nedevschi, S., ... Fall, K. (2005). The case for technology in developing regions. *Computer* 38(6), 25–38.
- Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management*, 21(1), 97–116.
- Buhalis, D. (2003). *eTourism : Information technology for strategic tourism management*. Harlow, UK: Financial Times/Prentice Hall.
- Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the Internet—The state of etourism research. *Tourism Management*, 29(4), 609–623.
- Cater, E. (1995). Consuming spaces: Global tourism. In J. Allen & C. Hammet (Eds.), *A shrinking world? Global unevenness and inequality* (pp. 183–231). Oxford, UK: Oxford University Press.
- Deller, S. (2010). Rural poverty, tourism and spatial heterogeneity. *Annals of Tourism Research*, 37(1), 180–205.
- Egger, R. (2013). The impact of near field communication on tourism. *Journal of Hospitality and Tourism Technology*, 4(2), 119–133.
- Fuchs, M., Höpken, W., Föger, A., & Kunz, M. (2010). E-business readiness, intensity, and impact: An Austrian destination management organization study. *Journal of Travel Research*, 49(2), 165–178.
- Gan, S. W., Inversini, A., & Rega, I. (2016, February 3–5). *Community-based tourism and ICT: Insights from Malaysia*. Information and Communication Technologies in Tourism 2016. Retrieved from <http://ertr.tamu.edu/enter-2016-volume-7-research-notes/>
- Gomez, R., Ambikar, R., & Coward, C. (2009). Libraries, telecentres & cybercafés: An international study of public access information venues. *Performance Measurement and Metrics*, 10(1), 33–48.

- Gretzel, U., Fesenmaier, D., Formica, S., & O'Leary, J. T. (2006). Searching for the future: Challenges faced by destination marketing organizations. *Journal of Travel Research*, 45, 116–126.
- Heeks, R. (2010). Do information and communication technologies (ICTs) contribute to development? *Journal of International Development*, 22(5), 625–640.
- Herrero, Á., & San Martín, H. (2012). Developing and testing a global model to explain the adoption of websites by users in rural tourism accommodations. *International Journal of Hospitality Management*, 31(4), 1178–1186.
- Hinson, R. E., & Boateng, R. (2007). Perceived benefits and management commitment to e-business usage in selected Ghanaian tourism firms. *The Electronic Journal of Information Systems in Developing Countries*, 31(5).
- Inversini, A., Rega, I., Pereira, I. N., & Bartholo, R. (2015). The rise of etourism for development. In I. Tussyadiah & A. Inversini (Eds.), *Information and communication technologies in tourism 2015: Proceedings of the International Conference in Lugano, Switzerland, February 3–6, 2015* (pp. 419–431). Cham, Switzerland: Springer International Publishing. doi:10.1007/978-3-319-14343-9\_31
- Karanasios, S. S., & Burgess, S. (2006). Exploring the Internet use of small tourism enterprises: Evidence from a developing country. *The Electronic Journal of Information Systems in Developing Countries*, 27(3).
- Kirsten, M., & Rogerson, C. M. (2002). Tourism, business linkages and small enterprise development in South Africa. *Development Southern Africa*, 19(1), 29–59.
- Kleine, D. (2015). ICT4D. In R. Mansell et al. (Eds.), *The international encyclopedia of digital communication and society* (pp. 315–323). New York, NY: Wiley-Blackwell.
- Krippendorff, J. (2010). *The holiday makers: Understanding the impact of leisure and travel*. London, UK: Taylor & Francis.
- Law, R. (2009). Disintermediation of hotel reservations: The perception of different groups of online buyers in Hong Kong. *International Journal of Contemporary Hospitality Management*, 21(6), 766–772.
- Mbatha, B. (2013). Exploring the potential of electronic commerce tools in South African SME tourism service providers. *Information Development*, 29(1), 10–23.

- Migiro, S. O., & Ocholla, D. N. (2005). Information and communication technologies in small and medium scale tourism enterprises in Durban, South Africa. *Information Development, 21*(4), 283–294.
- Mokhtar, J., Mokhtar, J., Brychan, T., & Said, A.-H. (2004). The role of Internet marketing in the development of the Libyan tourism industry. *Asian Journal of Information Technology, 3*, 306–312.
- Murphy, P. E. (2012). *Tourism: A community approach*. London, UK: Routledge.
- Nadkarni, S. (2008). Defining the ICT4D plus pro-poor tourism convergence space: Synergies for natural allies in the global war on poverty. *The Electronic Journal of Information Systems in Developing Countries, 33*(5).
- O'Connor, P., & Frew, A. J. (2002). The future of hotel electronic distribution: Expert and industry perspectives. *The Cornell Hotel and Restaurant Administration Quarterly, 43*(3), 33–45.
- Payton, F. C., Morais, D., & Heath, E. (2015). Multi-stakeholder assessment of a mobile and temporarily interconnected systems prototype: People-first tourism. *The African Journal of Information Systems, 7*(1).
- Sebele, L. S. (2010). Community-based tourism ventures, benefits and challenges: Khama Rhino Sanctuary Trust, Central District, Botswana. *Tourism Management, 31*(1), 136–146.
- Sharpley, R., & Telfer, D. J. (Eds.). (2014). *Tourism and development: Concepts and issues* (2nd ed.). Bristol, UK: Channel View Publications.
- Sigala, M., Christou, E., & Gretzel, U. (Eds.). (2012). *Social media in travel, tourism and hospitality: Theory, practice and cases*. Farnham, UK: Ashgate Publishing, Ltd.
- Spencer, A. J., Buhalis, D., & Moital, M. (2012). A hierarchical model of technology adoption for small owner-managed travel firms: An organizational decision-making and leadership perspective. *Tourism Management, 33*(5), 1195–1208.
- Stangl, B., Inversini, A., & Schegg, R. (2016). Hotels' dependency on online intermediaries and their chosen distribution channel portfolios: Three country insights. *International Journal of Hospitality Management, 52*, 87–96.



- Thomas, R., Shaw, G., & Page, S. J. (2011). Understanding small firms in tourism: A perspective on research trends and challenges. *Tourism Management*, 32(5).
- Unwin, T. (2009). *ICT4D: Information and communication technology for development*. Cambridge, UK: Cambridge University Press.
- Verhoest, P. I., James, T., Marais, M., & Van Audenhove, L. (2007). *E-tourism: A survey of e-business among South African tour operators*. Retrieved from <http://researchspace.csir.co.za/dspace/handle/10204/5493>
- Wang, D., Xiang, Z., & Fesenmaier, D. R. (2014). Adapting to the mobile world: A model of smartphone use. *Annals of Tourism Research*, 48, 11–26.
- Wilson, E. J., III. (2004). *The information revolution and developing countries*. Cambridge, MA: MIT Press.
- Werthner, H., & Klein, S. (1999). *Information technology and tourism: A challenging relationship*. Vienna, Austria: Springer-Verlag Wien.
- Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism Management*, 31(2), 179–188.