

# The Impact of the Mobile Web in the Developing World

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Web Science is an interdisciplinary approach to examine the World Wide Web, engineer its future, and ensure its social benefit [1]. The Web Science Research Initiative (WSRI) is a joint research body between the Computer Science and Artificial Intelligence Laboratory (CSAIL) at MIT, and the School of Electronics and Computer Science (ECS) at the University of Southampton. It aims to facilitate and produce the fundamental scientific advances of the Web. One research challenge in Web Science is developing a methodology to measure and forecast the impact of the mobile web in rural areas of developing world. It is crucial, because for over fifteen years the Web has been mainly designed for people in developed countries [2]. However, more than 80% of the world population live in less developed regions, where in rural areas the only available telecommunication means can be mobile phones [3] [4]. Moreover, since 2002 there has been an impressive growth of mobile cellular penetration in the developing world [5]. This poster explains a possible Web Science approach to understand the potential impact of this technology, both in the developing world and on the Web in general.

## Case Studies

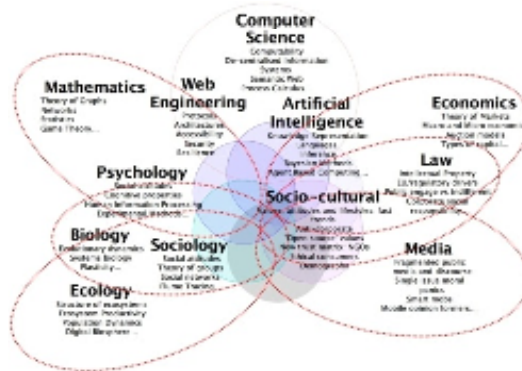
- Mobile health
- Mobile banking & micro finance
- Mobile learning



Mobile Web for Rural Region [6]

## Technologies

- User interfaces
- Web protocols
- Semantic web
- Mobile communications



Colliding Web Science [1]

## Economics

- Cost
- Pricing
- Better income
- Total Cost of Ownership (TCO)



## Psychology

- Understanding
- Predicting
- Manipulating people's responses to the mobile web



## Social

- Online society
- Social network
- Social Construction of Technology (SCOT)



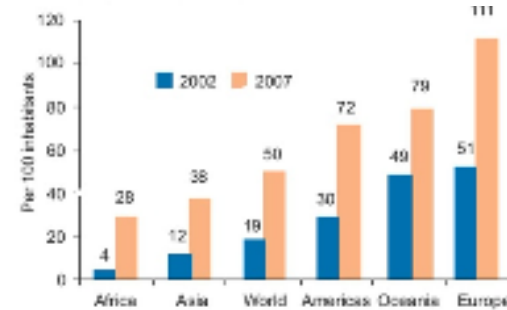
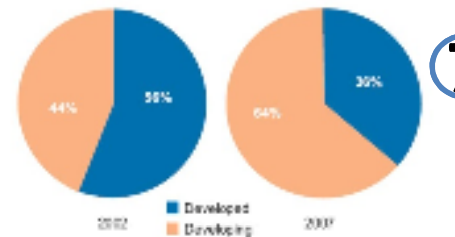
## Law

- New regulations
- Copyright issues
- Online Dispute Resolution (ODR)

## Plans

1. Theory & related work
2. Hypothesis
3. Research design
4. Devise measure of concepts
5. Select research site(s), research subjects/respondents
6. Administer research instruments/collect data
7. Process & analyse data
8. Write up findings/conclusions

Quantitative Research Method [7]



Mobile Cellular Subscriptions [5]

[1] Web Science Research Initiative. *Creating a Science of the Web*. Available at: <http://webscience.org/> [Accessed March 12, 2009]

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[3] Population Reference Bureau, 2008. *2008 World Population Data Sheet*. Available at: [http://www.prb.org/pdf08/08WPDS\\_Eng.pdf](http://www.prb.org/pdf08/08WPDS_Eng.pdf) [Accessed March 12, 2009]

[4] Bhawani, A., et al. *The Role of Mobile Phones in Sustainable Rural Poverty Reduction*. ICT Policy Division, Global Information and Communications Department. (GICT). Available at: [http://itresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/The\\_Role\\_of\\_Mobile\\_Phones\\_in\\_Sustainable\\_Rural\\_Poverty\\_Reduction\\_June\\_2008.pdf](http://itresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/The_Role_of_Mobile_Phones_in_Sustainable_Rural_Poverty_Reduction_June_2008.pdf) [Accessed March 12, 2009]

[5] International Telecommunication Union, 2009. *Measuring the Information Society, The ICT Development Index*. Available at: [http://www.itu.int/ITU-D/ict/publications/di/2009/material/ID2009\\_ws.pdf](http://www.itu.int/ITU-D/ict/publications/di/2009/material/ID2009_ws.pdf) [Accessed March 12, 2009]

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