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Cairo University
Faculty of Computers and Information
Information Systems Department

**A thesis submitted to Faculty of Computers and Information for the
degree of Master of Science in Information Systems**

**A Frame Work for combining Geographical Information
System with Electronic Commerce**

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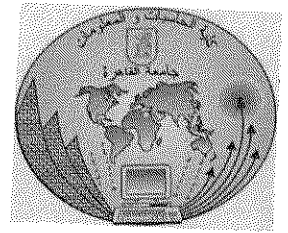
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Abstract

Geographical Information System (GIS) became a well established and beneficial technology in our daily life. Electronic Commerce has changed the view of utilizing technology to serve our needs and expands it to a new era. E-commerce involves making business transactions via telecommunication networks, primarily the Internet and extends to worlds of wireless networks and PDAs. GIS is managing any kind of business information according to its location. With organizations wanting to reach more people with their information, data, and services the need for serving and distributing data and analysis results is greater than ever, generating a need for GIS technology on the handhelds devices.

The integration between the GIS and the E-commerce appears in many fields; one of the latest fields is Location commerce.

Location Commerce (L-commerce) offering many relevant services, based on where you are located at any particular moment. This can be achieved by defining your position using any of positioning techniques. L-commerce expands the traditional E-commerce into worlds of wireless networks and positioning technologies. The wide spread adoption of wireless and mobile networks and devices creates an opportunity not only to transact applications that had been possible only from PC, but also to conduct new applications online. Moreover it expands the services to cell phones and Pocket Pcs.

This thesis is illustrating the concept of combining the two promising technologies of the future, Geographical Information Systems and the Electronic commerce. The emphasis will focus on the Location Commerce as an impact of E-commerce in GIS business. Proposed tools and techniques that apply for L-commerce are discussed. A case study is illustrated providing means of improvements to the business approaches that will be changed to such new applications where L-commerce will be an alternative to the traditional shopping. The next phase on wireless networks would see the development of location commerce, and all the applications ranging from the combination of GIS and E-commerce.

Key Words

GIS, E-commerce, L-commerce, Positioning techniques, Wireless Networks, GPRS

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