

Innovative approach to teaching forensics helps students track and solve crimes

August 13 2010

A novel approach to teaching forensics at the University of Toronto Mississauga's Forensic Anthropology Field School is using global positioning systems (GPS) and geographical information systems (GIS) to examine complex crime scenes.

Mapping out details of crime scenes is a vital part of [crime scene investigation](#) and reconstruction. The new teaching approach, developed by forensic anthropologist Tracy Rogers and GIS/Data librarian Andrew Nicholson, uses GPS and GIS technology to analyze evidence and spatially piece together crime scene clues.

GIS technology creates visual images of various types of data in map format. The technology can be used to display and analyze patterns in crime scene locations and forensic information. When combined with GPS systems, GIS software may be used to document and track patterns of crimes, track movements of criminals released on parole, as well as predict locations where serial offenders live and operate. The applications offer many possibilities for the visualization of forensic data and providing spatial and three- dimensional perspectives on forensic investigations.

“Our teaching approach uses existing GPS and GIS technology in a hands on way, so students can collect data points from crime scenes and then ‘mash’ them with other digital sources such as photos, scanned maps in a computer lab,” says Nicholson. “Many students are visual learners. Using digital mapping applications offers them opportunities for deeper

engagement and linking between abstract concepts, practical application, and problem solving.”

The innovative approach to teaching forensics promises to greatly improve in-class [crime scene](#) analysis by allowing students to pose questions and run scenarios, without the need for new hard copy maps to be constructed each time.

“This saves time and promotes problem solving and thinking outside the box. New approaches for presenting evidence using maps and other visuals in a courtroom-like environment can also be explored using these tools,” says Nicholson.

Digital mapping is used in many courses at other universities, however not all place the process of data collection entirely in the student’s hands. At the Forensic Anthropology Field School, students proactively analyze spatial relationships, run scenarios, take detailed measurements, compare maps to aerial photographs, identify patterns, and create data sets.

Provided by University of Toronto

Citation: Innovative approach to teaching forensics helps students track and solve crimes (2010, August 13) retrieved 27 April 2024 from <https://phys.org/news/2010-08-approach-forensics-students-track-crimes.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--