But, what about all those little brothers? Geofensing in the Land of the Free.

Jerome E. Dobson

Professor of Geography University of Kansas and President American Geographical Society



Location Based Services (LBS) Location-aware Technologies (LAT) Goods, Vehicles, Pets, People Privacy Human Tracking Geofencing Control Voluntary **Opt-in** Geoslavery Control Coercive **University of Kansas** Surreptitious dobson@ku.edu



Ethical Dilemmas

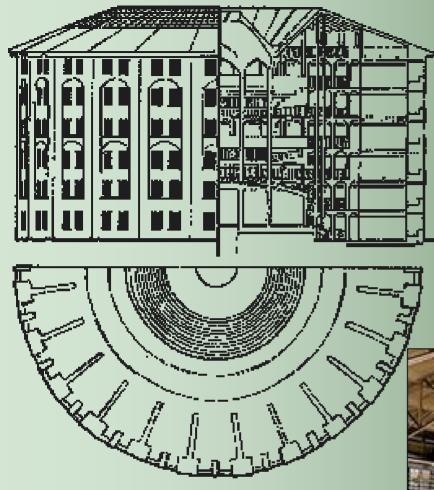
Benefits

vs. Risks



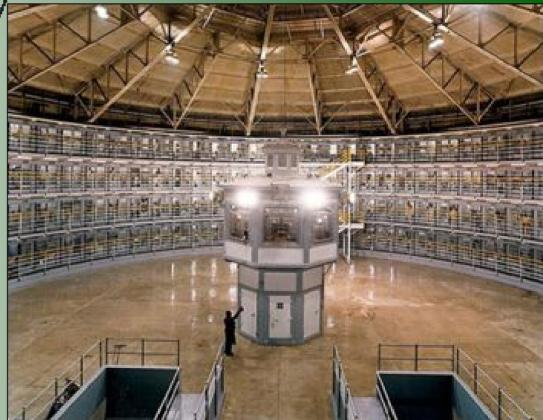
University of Kansas dobson@ku.edu





Panopticon I

Samuel Bentham Jeremy Bentham 1787





niversity of Kansas dobson@ku.edu "Morals reformed Health preserved Industry invigorated Instruction diffused Public burthens lightened

Economy seated, as it were, upon a rock The [G]ordian knot of the Poor-Laws . . . Untied All by a simple idea in Architecture!"

"A new mode of obtaining power of mind over mind, in a quantity hitherto without example. . . Such is the engine: such the work that may be done with it."

> Jeremy Bentham 1787



"Applicable to Any Sort of Establishment, in Which **Persons of Any Description Are to Be Kept under Inspection;** And in Particular to: **Penitentiary-houses Prisons Houses of Industry Work-houses Poor-houses Lazarettos Manufactories Hospitals Mad-houses Schools**



Jeremy Bentham 1787 "...whether [its purpose] be that of punishing the incorrigible guarding the insane reforming the vicious confining the suspected employing the idle maintaining the helpless curing the sick instructing the willing in any branch of industry, or training the rising race in the path of education...

"... whether it be applied to the purposes of *perpetual prisons* in the room of death, or *prisons for confinement* before trial

> Jeremy Bentham 1787

"a cruel, ingenious cage"

Michel Foucault 1995



Panopticon II

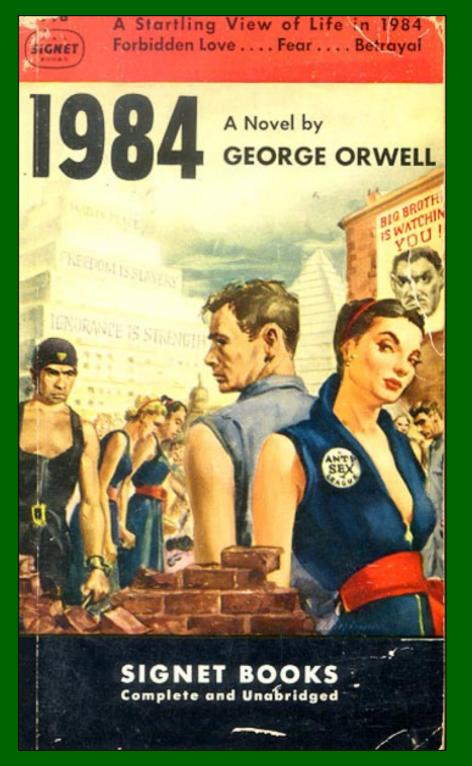
1984 George Orwell

Visual vs. Digital

Government vs. Individual

CCTV





Panopticon III

GPS Receiver tells *you* where you are in Lat/Lon Coordinates.

+ GIS tells *you* where you are in relation to geographic features (roads, buildings, rivers).

+ Radio Transmitter tells *someone* else where you are.

+ Radio Receiver allows someone else to *monitor* your location and *instruct* you *in real time*.

> + Transponder that stings or burns you will enable someone else to *monitor* and *control* your motions in real time.

Surveillance...Human Tracking...Control







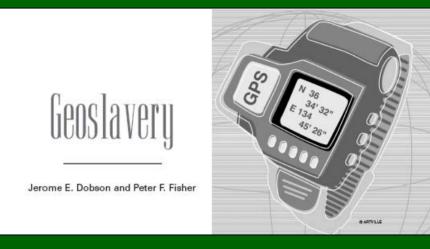




Cost and Coverage of Continous Surveillance

Surveillance Technology	Initial Cost of Construction, Purchase, or Retainer	Cost per Person per Year for Continuous Surveillance	Geographical Coverage
Analog	\$ 1,000 to	\$ 350,000	Unlimited
Spies	\$ 5,000		
Private Investigators			
Panopticon I	\$ 120,000	\$ 22,600	Inside Special
Bentham's Building			Purpose Buildings
Panopticon II	\$ 2.50	\$ 14,000	Extent of Television
Orwell's Big Brother			Camera Network
Television			
CCTV			
Panopticon III	\$ 200	\$ 240	Extent of Cellphone
GIS/GPS Tracking			Networks
Cellphone Tracking			

Dobson, J. E., and Peter F. Fisher. 2003. "Geoslavery," *IEEE Technology and Society Magazine* 22(1): 47-52.

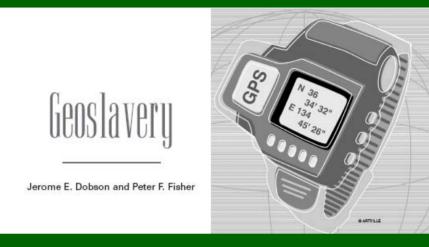


Society must contemplate a new form of slavery characterized by location control.



12

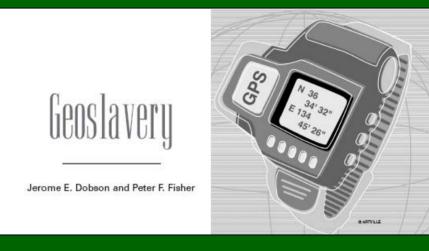
Dobson, J. E., and Peter F. Fisher. 2003. "Geoslavery," *IEEE Technology and Society Magazine* 22(1): 47-52.



Geoslavery is defined as a practice in which one entity, the master, coercively or surreptitiously monitors and exerts control over the physical location of another individual, the slave.



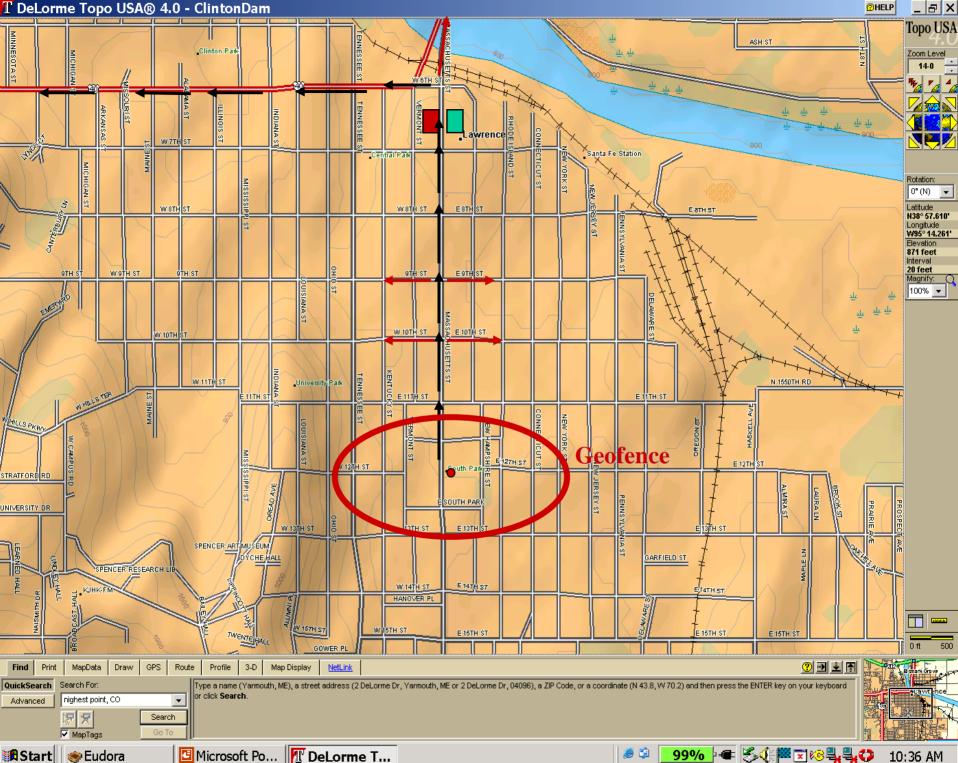
University of Kansas dobson@ku.edu **Dobson, J. E., and Peter F. Fisher. 2003. "Geoslavery,"** *IEEE Technology and Society Magazine* 22(1): 47-52.



Inherent in this concept is the potential for a master to routinely control time, location, speed, and direction for each and every movement of the slave or, indeed, of many slaves simultaneously.

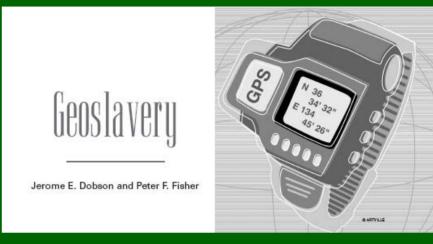


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10:36 AM

Dobson, J. E., and Peter F. Fisher. 2003. "Geoslavery," *IEEE Technology and Society Magazine* 22(1): 47-52.



Surveillance and control may be enhanced through complementary monitoring of functional indicators such as body temperature, heart rate, and perspiration.

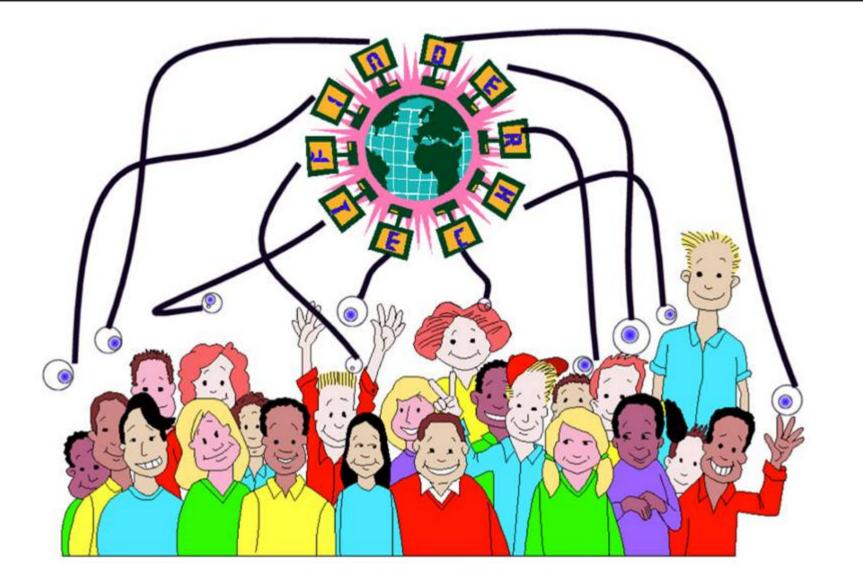


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Human Tracking Technologies







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otp (one-time programmable) read-write transponders readers

TROVAN ID100IH

Implants



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Additional Information

Pfizer Plans to Incorporate RFID Technology into Viagra Packaging in U.S.

New York, November 15 -- In a continuing effort to combat drug counterfeiting and protect patients, Pfizer has announced a new initiative to use radio frequency identification (RFID) tags that will enable wholesalers and pharmacies to authenticate all Viagra sold in the United States. The project supports FDA efforts to promote the development of standards and processes in preparation for RFID's broader use across the pharmaceutical industry. Pfizer will begin planning for the project immediately and has set a goal to start shipping Viagra with RFID technology by the end of next year.

Pallet?

Package?

Product?







www.10meters.com/verichip.gif 136 x 92 pixels - 11k *This image may be subject to copyright.*

Skin Deep: Human Microchip Gets Green Light for U.S. Distribution

10Meters News Service

April 4, 2002 – VeriChip has been given an official green light to begin selling its implantable human microchip in the United States.

The Palm Beach, Fla., company yesterday announced that it had received "written guidance" from the U.S. Food and Drug Administration (FDA) that the chip is not considered a "regulated medical device."

The designation clears the way for the





?

Former Bush official gets chipped

Tue, 26 Jul 2005 20:34:53 -0700

GNN 2.0 Beta

Summary:

Former Wisconsin Governor Tommy Thompson has joined the board of directors of Applied Digital Solutions – maker of the VeriChip implantable RFID tag – and will now promote the product by having one injected into his arm. Proponents of the technology (mostly those with a financial stake in the product) cheer the benefits of tracking kids, pets and senile adults as well as the ability of the chip to store medical and credit information. Detractors cite a host of concerns ranging from medical issues to the possibility of mandatory chipping in a system of global geoslavery.

[Posted By whitey]

By Michael Kanellos Republished from ZDNet News

Tommy Thompson, the Health and Human Services Secretary in President Bush's first term and a former Governor of Wisconsin, is getting an RFID implant

Thompson has joined the board of Applied Digital, which owns VeriChip, the company that specializes in subcutaneous RFID tags for humans and pets.

GPS SATELLITE TRACKING/LOCATION SYSTEMS



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TravelEyes GPS Tracker



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Travel*Eyes*TM, an amazing GPS vehicle tracking device used for monitoring the travel activities of private vehicles, and as an aid in keeping travel records for tax purposes.

Travel*Eyes*[™] is the ultimate in private GPS vehicle tracking, featuring the same GPS satellite technology developed and used by the US Department of Defense.

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TravelEyes[™] is a miniature tracking device for monitoring the travel activities of private vehicles using GPS (Global Positioning System), to be concealed within the vehicle, the tiny TravelEyes[™] unit can tell exactly where the car has been, how long it was there and when it left the last destination.

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Travel*Eyes*™ gives you proof your suspicions were right...

Ever wish you had a tool that could prove your suspicions were valid? Next time you sense suspicious activity, make sure Travel*Eyes*™ goes along for the ride. Travel*Eyes*™ can track a vehicle to the nearest address, tell how long the vehicle remained at any given destination and provide details of suspicious activities. Why pay a fortune to hire a private investigator when you can be your own "detective" with Travel*Eyes*™...and pocket the money?



Belle accused of stalking ex-girlfriend

Associated Press Posted: 1 hour ago

SCOTTSDALE, Ariz. (AP) - <u>Albert Belle</u> tracked his ex-girlfriend with a GPS device and repeatedly threatened her, according to a police probable cause statement filed in support of stalking charges.

The 39-year-old former baseball star was arrested in Scottsdale on Thursday and charged with stalking. He made an initial court appearance late Thursday, and a judge set bail at \$108,000, ordered him to be electronically monitored and to stay away from the victim.

Reached by The Associated Press on Friday morning, Belle declined to comment on the case.

"You didn't write a story about my Hall of Fame induction," said Belle, referring to joining the Louisiana Sports Hall of Fame last year. "You guys never report the good stuff that I do."



Former slugger Albert Belle is charged with stalking his ex-girlfriend. (Jamie Squire / Getty Images)

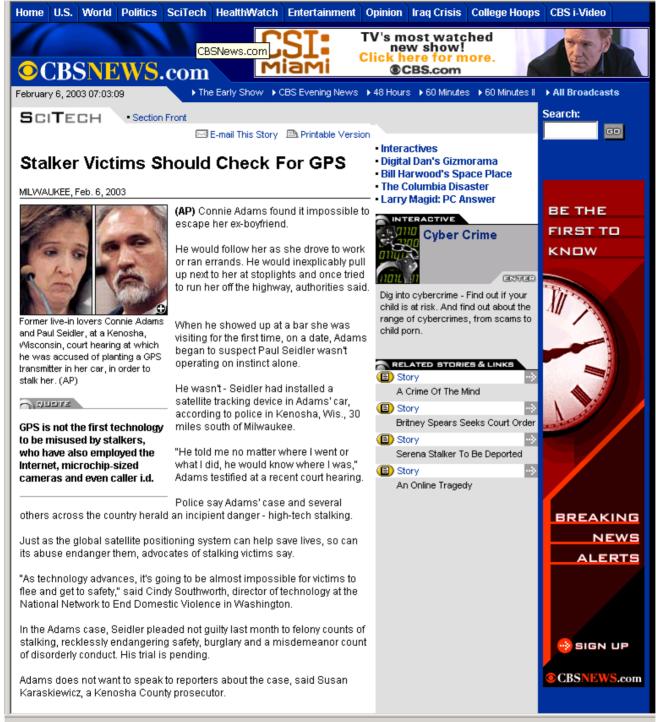
FoxSports.Com

February 17, 2006

MLB NEWS

Headlines

- Too early to determine Sosa's legacy
- · Ex-Phillie Daulton talks up metaphysics, end of the world
- Classic Steinbrenner: Boss fumes over Yanks in WBC
- Marlins talk about possibly relocating to Oklahoma
- Police: Belle stalked ex-girlfriend using GPS device
- Cubs' Wood: No date for getting on the mound



CBS News ...

26



About Digital Angel Corporation

Digital Angel Corporation develops advanced RFID and GPS technologies that enable rapid and accurate identification, location tracking, and condition monitoring of highvalue assets. Applications for our products include identification and monitoring of pets, humans, fish and livestock through our patented implantable microchips as well as message monitoring of aircraft in remote locations through integrated GPS and geosynchronous satellite communications systems.



Franks Endorses GPS Teen Tracker

Retired General Likes Idea Of Keeping Tabs On Driving Habits

BRADENTON, Fla., Dec. 10, 2004



Retired General Tommy Franks (CBS)



"As a parent, I know it is not only my right, but also my responsibility to keep an eye on and protect my children." Tommy Franks (AP) Retired Gen. Tommy Franks has signed on to be the spokesman for a company that uses global positioning system technology in teens' cell phones to let parents know how fast they're driving.

Franks will be the official face of Teen Arrive Alive. The organization aims to get teens to carry a cell phone containing a GPS chip that sends out regular signals letting parents know where they are and how fast they're going.

If a certain predetermined speed limit is passed, an alarm will go off in the cell phone and parents will be notified.

A bumper sticker on the teen's car enables drivers to report reckless behavior. Both the teen

and his or her parents are then notified by phone or e-mail that a negative driving report has come in.

"As a parent, I know it is not only my right, but also my responsibility to keep an eye on and protect my children," Franks said. "If I know where my kids are, where they're going, how they're driving and how fast they're traveling, I can



●CBS NEWS VIDEO CBS NEWS VIDEO IN DE DI 40 Readv Fullscreen | Help

🖦 Tracking Down Your Teen

Parents who suffer anxiety attacks every time their teens get behind the wheel have a new weapon in their arsenal: cell



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Flash demo

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Meets the following requirements:

Location/Status—Determine the exact latitude/longitude of a mobile device (employee assigned or otherwise) at a specific point in time or under pre-assigned parameters (geo-fencing); determine if a device is on or off.

Track-Track and manage mobile employees, vehicles or inventory.

Direct-Enable mobile employees to receive visual or audible, detailed driving directions and maps.

Message–Send mobile employees an SMS or voice message at a specific point in time or under pre-assigned parameters (alerts) within the enterprise application. Voice messages can be sent to any valid phone number

Information Share-Share Third Party Application data with mobile employees using Sprint PCS Vision.



XOIC GPS TimeTrack

New Xora Service Dramatically Changes the Way

Companies Locate and Manage Field Workers

Xora GPS TimeTrack 2.0 Offers Advanced Tools for Location, Job and Time Management

MOUNTAIN VIEW, California (November 23, 2004) – Xora, Inc., a leading provider of Mobile Workforce Management solutions, today announced the availability of its second-generation Xora GPS TimeTrack service, a hosted software application that runs on GPS-enabled phones.

"Xora GPS TimeTrack 2.0 goes further than any other phone-based mobile workforce management service, with features and functionality that can not be found in other competing systems," said Brent Iadarola, Program Leader for Mobile Communications at Frost & Sullivan. "Having firmly established itself as a market leader, Xora is raising the bar with this latest release in terms of making mobile worker's time, location and job information even more useful. If you are the manager of a mobile service organization in any industry that is seeking to improve the productivity and accountability of field staff without investing in expensive software or hardware, you would be wise to check out Xora GPS TimeTrack v2.0."

Now 50,000

Xora GPS TimeTrack already is being used by more than 20,000 mobile workers across the country every day to locate and manage field employees. Managers of field-service organizations report that the Xora service helps them to keep track of mobile workers' activities and billable hours, often resulting in



University of Kansas dobson@ku.edu



September 26, 2004

Don't geofence me in

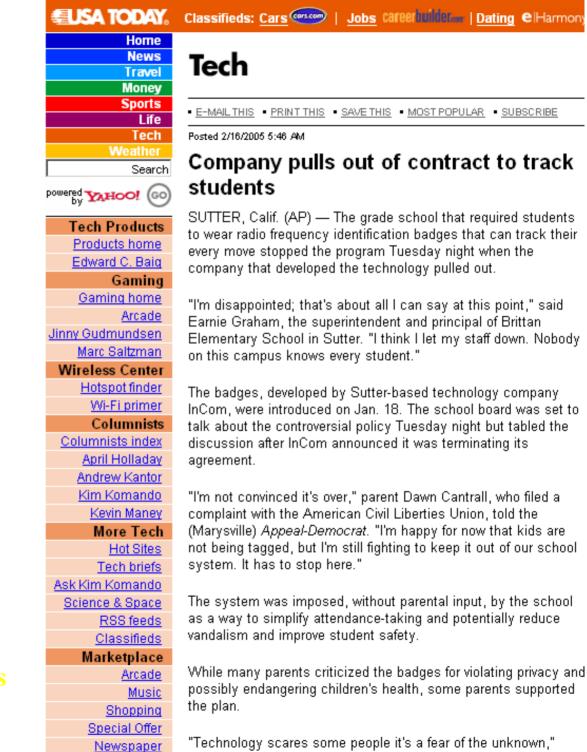
Always-On Panopticon...or Cooperation Amplifier Posted by Jim_Downing at 12:15 AM

CNET news says that "cell phones are giving employers new ways to check up on employees in the field--and raising fresh workplace privacy concerns as a result.On the leading edge of the trend is Nextel Communications.The wireless provider began selling its Mobile Locator service last November,giving bosses an easy way to find employees who carry GPS-equipped cell phones.Earlier this month, mobile tracking firm Xora showed off the latest version of its Nextel GPS (global positioning system) phone software. The company says 1,600 corporate customers have signed up for its services,including "geofences" technology that sets off an alarm at the office when field workers go to preprogrammed off-limits sites, such as a bar or a park."There's no electro shock--yet, Xora CEO Sanjay Shirole said."



Reactions

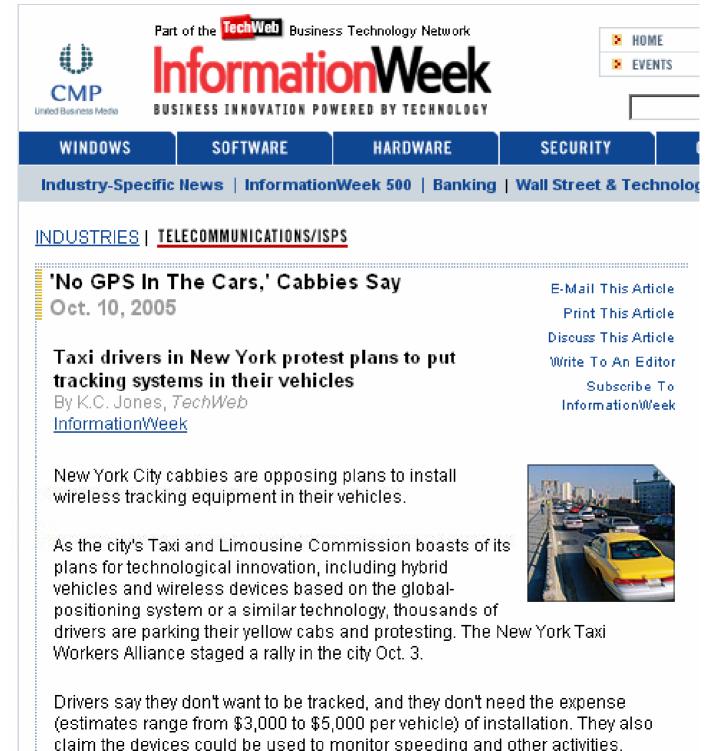




Classifieds.

parent Mary Brower told the Appeal-Democrat before the





Revelations

¹¹ Then I saw another beast that rose out of the earth; it had two horns like a lamb and it spoke like a dragon. ¹² It exercises all the authority of the first beast on its behalf, and it makes the earth and its inhabitants worship the first beast, whose mortal wound had been healed. ¹³ It performs great signs, even making fire come down from heaven to earth in the sight of all; ¹⁴ and by the signs that it is allowed to perform on behalf of the beast, it deceives the inhabitants of earth, telling them to make an image for the beast that had been wounded by the sword and yet lived; ¹⁵ and it was allowed to give breath to the image of the beast so that the image of the beast could even speak and cause those who would not worship the image of the beast to be killed. ¹⁶ Also it causes all, both small and great, both rich and poor, both free and slave, to be marked on the right hand or the forehead, ¹⁷ so that no one can buy or sell who does not have the mark, that is, the name of the beast or the number of its name. ¹⁸ This calls for wisdom: let anyone with understanding calculate the number of the beast, for it is the number of a person. Its number is six hundred sixty-six.

The Mark of the Beast



Albrecht, K. and L. McIntyre. 2005. Spychips: How Major Corporations and Government Plan to Track Your Every Move with RFID (Nashville: Nelson Current), 288 p. Dobson, J. E., and Peter F. Fisher. 2003. "Geoslavery," *IEEE Technology and Society Magazine* 22(1): 47-52.

THE KANSAS CITY STAR.

Posted on Fri, Mar. 07, 2003

KU professor has nightmare vision of global positioning technology

geoworld

Is GIS a Privacy Threat?

http://www.geoplace.com/gw/1998/0798/798onln.asp

GEOWORIC THE "G" in GIS | Jerry Dobson

Think Twice About Kid-Tracking

http://www.geoplace.com/gw/2003/0305/0305gngs.asp

Fisher, P. F, and J. E. Dobson. 2003. "Who Knows Where You Are, and Who Should, in the Era of Mobile Geography?" *Geography* 88(4): 331-337.

geoworld

The "G" in GIS

What Are the Ethical Limits of GIS?

http://www.geoplace.com/gw/2000/0500/0500g.asp

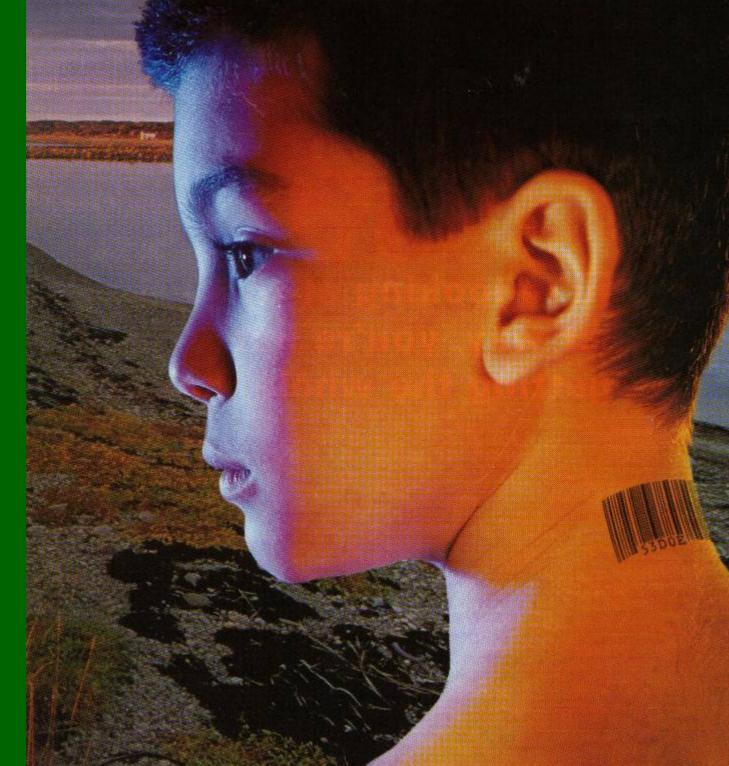
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Every step you (I's time for an explic Chicago Final Editio Chicago Tribune - Chi Author. Date: Start Page:	take, every move you make is national debate on human-tracking that goes far beyon vi icago, III. Jerome E Dobson, president of the American Geograph geography professor at the University of Kansas Feb 25, 2005 21	

Once viewed as a futuristic nightmare, human-tracking is now affordable and available without restriction. For \$200, plus a monthly service fee of \$20, anyone can purchase an electronic device linat puts George Orwell's 1984 surveillance technology to sharme. They're marketed as 'kid tracking' devices, though some ads also mention pets and senor citizens. In wind shades of doublespeak, one company offers service plans named ''Uberty, independence and Freedom,' but surveillance and control are their purpose.



Jerome E. Dobson and Peter F. Fisher

"The greatest threat to personal freedom ever faced in human history."



Americans often say they love freedom enough to die for it.

Monday, November 06, 2006

Cheaper car insurance, geoslavery or geosavings?

Tim from GPS Review revisits the idea of submitting a GPS tracklog to your insurance company to prove you are a good driver in exchange for better rates. This particular program is in the UK called "Pay as you Drive". David Starr talked about a similar program in Canada a couple months ago.

I still think this is a good idea. In order for GPS to be profitable in the consumer market, the end person being tracked must be in full control. In both of these cases, participation is voluntary and the consumer is in full control over who sees their data.

As long as rewarding volunteers doesn't turn into punishing non-volunteers, then I encourage these programs. I can see the commercials, "Where's Tim can save you 15% or more!!"

I'm curious to hear Jerome Dobson's opinions on this.

Technorati tags: GPS, Car Insurance, Pay as you Drive, Where's Tim, GPSReview, David Starr, Jerome Dobson, geoslavery

posted @ 6:58 PM | Feedback (1)

Will they now trade it for a few dollars a month on car insurance?



"Those who would sacrifice liberty for security soon shall have neither."

> Benjamin Franklin Often Quoted

"They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety."

> Benjamin Franklin, Historical Review of Pennsylvania 1759



"If you want total security, go to prison. There you're fed, clothed, given medical care and so on. The only thing lacking... is freedom."

> **President Dwight D. Eisenhower Engraved On Wall of Presidential Library**



