Google Maps and Beyond

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Google Maps and Beyond - Overview

Business case for mapping technologies

Exposure to mapping tools
  - Google Maps
  - County and City map portals
  - Esri ArcGIS platform

Online Maps can be created by anyone
Location – Where am I?

GPS (Global Positioning Systems)

Data associated to location

Documents
Text
Photos
Information – What’s near me?

Points of interest
Public information
  Roads
  Parcel boundaries
  Features

GISPD.com  GIS Professional Development
Navigation – How to get around

Directions
  Driving
  Walking
  Biking

Use current location

How to get somewhere
Mobile devices

Include Maps & GPS
Collect, transmit and receive data
  Photos
  Notes
  GPS

Mini computers
  Internet access
  Run applications

Communication device
  Call and text
Unmanned Aerial System (UAS)

What are they?
A source for gathering imagery
New possibilities

FAA Regulations

- Operate within line of sight
- Fly under 500 Feet
- Not within no fly zones

Must have operators license & exemption from FAA for commercial use

Online Mapping Portals

Don’t need to be an expert
“Easy” to use
Quick access to information
Powerful analysis tools

Measure
Distance
Area
Content management system

ArcGIS Online
Store just about any kind of data
Quick and easy access
Import
  Excel, CSV
  GIS layers and services
Visualization tool

Maps easily convey information

Tools that enable interactivity

Engage audiences
Health check and switching gears

Is everybody with me?
Time for a deeper dive
Spatial technology introduction

Online mapping
Location-based services
Geographic Information Systems (GIS)
What is GIS?

Geographic Information Systems
Field concerned with managing & analyzing spatial information

Video from Esri – What is GIS?

https://www.youtube.com/watch?v=VwwHSLjAE8M
My background

First American Title for 8 years
Managing GIS operations
Developing GIS vision
Solutions Engineer

Degrees in Forest Resource Management & GIS
15 years GIS experience
My professional development activities

GISPD.com - GIS professional development
    Volunteer effort that supports the GIS community

Northwest GIS User Group board member
    Coordinate events
    Form policy

Regular contributor to gatherings
    Coordinator
    Presenter
The power of GIS

Video from Esri – The Power of Maps

http://video.arcgis.com/watch/3606/power-of-maps
Business purpose – Why use maps?

Operations

Technical capabilities

- Instantly create, share and access web maps

Enhanced

Work Flows

- Do more with less
- Be more efficient and effective

Management dashboard

- Adding a map component to business data
- Reveal information only seen on a map
Sales and marketing

Discover and target clients

Enhance existing products and services
  Embed maps to company web site
  Add maps to reports or other materials
  Include in presentations
Support planning and decision making

Inventory of current projects or clients
  Map them out
  Attach data to map features
Internal and external communication

Maps are easy to use communication tools

Intuitive

Most people are familiar with maps

Enhance presentations

Keep informed on project status

Change color of features based on completion status
  Parcels
  Houses
  Common areas

Link data
  Permits
  Notes
  Images and video
HOA Mapping
HOA Mapping

Monarch Spatial Technologies

• The Cripple Creek Mountain Estates Property Owners Association wanted an illustrative way to inform residences of upcoming proposed improvements to the community areas of the subdivision. Using GPS mapping technology, we created displays for the residents showing the proposed picnic area, volleyball area, tennis courts, benches around the fishing ponds, and new fences around their open space. These displays helped residents visualize the property and ask questions about the proposals. Also collected within the GPS field data was culvert locations and sizes, fishing pond high water perimeters, and water channel locations.
Web GIS (online mapping)

GIS capabilities are now available to non-GIS experts

County & City web mapping portals
  Clark County Nevada online mapping (GISMO)
  http://gisgate.co.clark.nv.us/openweb/

Global Positioning Systems (GPS)
  Receives and transmits current location
  Built into most mobile devices
Google Maps and Earth

Search Places

What’s here?
  Gets closest address to where you click or tap on map
  Hotels
  Cities

Get directions
  Can use current location

Visualize data
  Aerial, Street, and Street View
  3D

Measure
  Distance
  Area
Custom applications

Task-specific focused applications

Turnkey solutions
The ArcGIS platform (Esri)

#1 provider in spatial software

Traditionally only for GIS experts
  Desktop installs and local data
  Required years of training and experience

Can now be used by non-GIS experts
  All of you

ArcGIS Online Overview - Video by Esri

http://video.arcgis.com/watch/916/arcgis-online-overview
Collector for ArcGIS

Manage location data more efficiently and effectively
Collect and update information in the field
Use smartphone or tablet
- GPS points
- Custom data entry form
- Upload documents
- Attach photos or video
Integrates directly with ArcGIS Online
The Cripple Creek Mountain Estates Property Owners Association wanted an illustrative way to inform residences of upcoming proposed improvements to the community areas of the subdivision. Using GPS mapping technology, we created displays for the residents showing the proposed picnic area, volleyball area, tennis courts, benches around the fishing ponds, and new fences around their open space. These displays helped residents visualize the property and ask questions about the proposals. Also collected within the GPS field data was culvert locations and sizes, fishing pond high water perimeters, and water channel locations.

Collector is ideal for this type of project.
ArcGIS Online overview

Turnkey mapping solution
Built for non-GIS experts
Assists in making smarter, faster decisions
Solves business needs
Opens doors to new possibilities
Integrates into most business systems
Microsoft
Create and share Online Web Maps

Access via web or any mobile device
Use directly within Microsoft Excel
Add a map like you would a chart or graph
Online 2D and 3D mapping

Similar to Google Earth
Fly through and 3D view
Map creation made easy

Start with map templates
   Esri layers and base maps
      Open Street Map
      BING Aerial and Street

Add data to map
   Your data
      Excel, CSV
   Public GIS community

Configure pop-up
   Text
   Images
   Videos
   Graphs and charts
Perform analysis and visualize data

Create buffers
  Distance around a feature

Measurements
  Use ruler to get lengths

Summarize data within an area
  Surface volumes
    Streets
    Common areas

Symbolize data
  Highlight common areas or area of interest
  Differentiate road types
    Public
    Private
Demo

- Create a Web Mapping Application under 2 minutes
- Sign in to ArcGIS Online (AGO)
- Create Web Map
- Add Esri Data
  - HH Incomes
  - Average Age
- Search and Zoom to location
- Save Web Map - Done
Demo

• Convert Excel or CSV into a Web GIS Layer
  • Drag & Drop onto Web Map
    • Creates Points on the map
      • Includes all data within Excel or CSV

• Save & Share Web Map

• Create Web Mapping Application
Story Maps

Inform and inspire audiences
Combine interactive maps and multimedia content
Create elegant user experiences that tell your story
Resources / Support

https://developers.arcgis.com/en/
Sign Up for free account

http://video.esri.com/
Catalog of videos by Esri

http://www.arcgis.com/features/

http://gispd.com/
Volunteer effort that supports the GIS community

http://www.urisa.org/
National organization governing GIS policies
Find connections for your area
Summary and closing

Business purpose
- Do more with less
- Enhance what you already do
- Leverage mapping technologies

Online mapping
- Easy to use
- Available to everyone

Collector for ArcGIS
- Easily collect and manage field data

ArcGIS Online
- Built for non-GIS experts
- A Complete mapping platform
- Sign up for free account
Thank You for attending

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