Delivering Actionable Information

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THE NEED FOR ACTIONABLE INFORMATION

End-users, Customers, Stakeholders, Clients and Decision-Makers

AKA- Our Consumer

• GIS is a fantastic decision-support tool
• We support our Consumer
• Yet, our consumer is often
  Drowning in Data...Thirsting for Information
Semantics

- Consumer
- Data and information
  - Is it the same thing?

The Data to Wisdom Pathway

Data → Information → Knowledge → Wisdom

To Put it Another Way

It is vital to remember that information - in the sense of raw data - is not knowledge, that knowledge is not wisdom, and that wisdom is not foresight. But information is the first essential step to all of these.

- Arthur C. Clarke
What is?

• Data
  – Context
  – Meaningful to you

What is?

• Information
  – Context
  – Meaningful to you

What is?

• Knowledge
  – Context
  – Meaningful
  – Speaks to you
  – Part of your paradigm
What is?

- Wisdom
  - Context
  - Meaningful
  - Speaks to you
  - Part of your paradigm
  - Appropriate use of knowledge

Are you Delivering **Data** or **Information**?

Spatial Data Science
The Building Blocks of Spatial Data Science
It’s about Communication

- How do we communicate with geospatial data?
  - First, we need data
    - Ideally from reliable and/or authoritative sources
  - Visualization using standardized or accepted symbology
    - Regardless of how you feel about it cartographically
  - Consider generalization or reclassification
    - Principles of cartography
      - High, medium, or low instead of 0-10000
      - Using meaningful values and words

It’s about Communication (cont’d)

- Use meaningful units
  - Acres instead of the number of pixels
  - Miles instead of meters
  - “Sagebrush-steppe” instead of code 4622

An Example

- Q: How much of the 2015 Widget fire was considered a high severity burn?
  - A: 1,968 pixels
  - A: 1,771,200 m² (1,968 30x30 m (900 m²) pixels)
  - A: 437.673052 acres (be cognizant of significant digits)
  - A: 437 acres
Is all Information **Actionable**?

- What's the difference?
  - Some information may be trivial or tangential
    - You understand it, but it provides little/nothing toward helping to make a decision
  - **Actionable information** is pertinent and applicable
    - It is information that helps make a decision
    - Information that can be acted upon

How are Decision Made?

- While we (GIS'ers) are not the decision maker
- Our actionable information should support wise, well-informed decisions

**OODA**

Observe, Orient, Decide, and Act
Actionable Information Checklist

- **Step 1:** Identify and understand the consumer.
- **Step 2:** Understand the question!
- **Step 3:** Leverage your strengths
- **Step 4:** Get to know the data
- **Step 5:** Make a great map!
- **Step 6:** Automate
- **Step 7:** Engage in a Team of Teams approach

Understand the Consumer

- In some cases, the consumer may be John Q. Public
- In other cases, the consumer is a more specific end-user
- In still other cases, the consumer is *all the above*
- **To make this easy for our learning process, we will identify a specific end-user/consumer**

Our Project Scenario

- The Widget Wildfire
  - Problem: Identify post-fire effects
  - Consumer: Land managers/emergency managers at the local, state, and federal levels
Let's craft a meaningful question

A Checklist

• When you have finished spatial analysis and are ready to deliver the results…

• Ask yourself:
  – How can I explain this, so the results can immediately support sound decisions?
  – How can I best communicate these data?
  – How can I help turn these data/results into actionable information?

Applied Actionable Information

• Engage in a team of teams approach
  – This is actually quite critical
Hands-on exercise

TRANSFORMING DATA TO INFORMATION

Professional Hints and Tips

• Calendars
  – Accept invitations when you plan to attend
  – This is a professional etiquette and acts as an RSVP for
    meeting organizers (they do not need to follow up)
• Be on time for all meetings
  – Better yet, be just a few minutes early

Questions/Discussion?