

# ***Getting beyond the Dragnet approach to the Internet***

by Ted McCain

The way it used to be...

- Manageable
- Encyclopedias
- You could keep up

But today...

- Astounding impact
- Getting info to publisher
- You must keep linked to info sources
- Deluge of material

The result

- Overwhelming
- Consider all the sources of information
- Then add...
- Now Internet phenomenon
- Incredible ability to report

Consider what's to report

- Over 90% of scientists
- Scientific research & development
- Technical information

But it's getting worse

- By 2005...
- Represent information as a ball of twine
- Increased in size 40 times 1990 - 2000
- Even greater increase 2000 - 2010

And you can't ignore it!

- Competitive advantage
- Or keep pace
- Need to keep up
- Infowhelm - Ian Jukes

We can't keep up!

- Keeping up with developments in teaching or your curriculum?
- But it gets worse...
- Critical info is hard to discern

Critical need

- Effective information processing
- Transformation in work force
- Bob Hughes - mind force
- Information literacy the foundation for success

### New skills we must teach

- Effective 21st century info skills
- 3R's
- 4I's
- Information Technology
- Information Processing
- Information Presentation
- Independent Problem Solving
- Two benefits

### Our response to these sweeping changes?

- New electronic tools...
- Changing nature of information...
- New basic skills in world of work - response?
- Continued to teach the same way

### Outdated view of research

- Dagnet approach
- Police show with Sgt. Joe Friday
- Famous line...
- "Give us the facts ma'am"
- How many of you relate...

### Mrs. Steele & Geog. 12

- Dagnet teacher
- Fact-finding exercises
- One country at a time
- Worksheets using textbook
- "Worksheets 12"

### The report

- Report listing:
  - climate
  - government
  - economy
  - ethnic groups
  - religion
- Superficial
- Cover curriculum
- Focus on memorization

### This is not uncommon

- Fact-based research
- "Clark Kent" approach
- More is better
- Rehash - nothing original
- Change a little & call it your own

We've all done it

- How most of us made it
- Descriptive research - Jamie MacKenzie
- Look it up & report
- Little analysis

Powerful information tools

- CD ROMs
- Internet
- E-mail
- Chat lines
- How are they being used?

New tools, old methods

- Research in my school
- Dagnet approach
- Fact finding
- Playing Clark Kent
- Focus is on getting
- Unintended results...

Superficial treatment

- Rewarded for retrieval
- Librarians
- No time
- Just get me the information
- Focus on reporting facts

Friday would love Internet

- Store-house of facts
- Large databases
- Filled with facts
- Fisher.lib.virginia.edu/census/
- Reporter's dream
- Huge pitfall...

The folly of facts

- Facts = understanding
- Not true
- Facts must be processed
- Missed by many
- Research for reporting is not cutting it

Especially on the Internet

- Not what it seems
- Recent events
- Pop culture
- A sensation vs. being significant

### Need for critical thought

- Critically assessing the info
- Reality...
- Clark Kent approach
- Soft copy text
- Funk & Wagnals

### Dragnet isn't working

- In modern world
- More than reporting
- We must move on...

### Moving research from...

- Just reporting
- To analyzing
- Bloom's Taxonomy
- Let's have a look...

### Bloom's Taxonomy

6. Evaluation
5. Synthesis
4. Application
3. Analysis
2. Understanding
1. Awareness

### Moving research from...

- Lowest levels of thought
- Must move to...

### Evaluative research

- Highest level of thought
- Much more - see significance
- Research of 4 year old - Jamie MacKenzie
- Significance is found...
- Can't stop there

### Must go beyond reporting

- Make judgements
- Relative value
- Personal
- Formal writing

### Must go beyond reporting

- State what they believe & substantiate
- Original thought
- Importance of facts
- Desperately needed - we are drowning

Where do they learn this?

- In your school - evaluative research - or taken for granted?
- In my district (& others)
- Catch 22

It's assumed learning

- Not the case
- We must make this happen
- Structured process
- What would this look like?

1. Reason

- Key to effective research
- Provide structure
- From curriculum
- Reason for new skills & info
- No problem... no need
- Especially on the Internet
- Viewing is replacing reading
- Internet use must have a purpose

How would tasks for students be different?

The task is the key

- More than reporting
- Mrs. Steele
- Which of 4 countries for a business:
  - climate
  - government
  - economy
  - ethnic make-up of population
  - religion in the country
- Key is 2 or more countries

Consider these tasks

- Which country's policies have worked best in the war on drugs?
- Which of these six running shoes is best for you?
- Which of these pain killers is better for treating tendonitis?
- Which of these three periods in history would you like to live in based on the following factors?
  - Political system
  - Religious influence
  - Working conditions
  - Access to education
- What is the best method for rehabilitating a stream contaminated with Eurasian Milfoil weed?

These tasks ask for more

- More than just reporting
- Value judgements

## 2. Find

- Finding resources
- Whole gamut
- Strategies for searching
- Key skill - asking effective questions
- <http://fno.org> - excellent resource

For the Internet

- Information Technology
- Boolean searching
- Synonymous phrasing
- Directory vs. content vs. meta search engines
- When to search, when to surf

## 4. Process

- Goals...
- To get information
- Comprehension
- Understanding
- Application

So how do we do it?

- Major misconception
- Quantity is not knowledge
- Already drowning
- Data must be processed

The key is significance

- Must see significance
- Cliff Notes
- Executivesummaries
- Significance determined

How do we teach this?

- Higher level skills
- Six key strategies...

Corroborate

- Single source not preferable
- Challenge for some
- Textbook
- Tripod metaphor
- Multiple mediums

## Be Critical

- Probing questions
- Reason?
- Complete?
- Bias?
- Methodology?
- Commercial motivation?
- How old?

## Categorize

- Sort & group
- Similarities & differences
- Technology
- Database is a great tool
- Critical for the Internet

## Compare

- Compare & contrast
- Rate & rank
- Technology
- Spreadsheet

## Construct

- Interpolate, extrapolate, create statistics & charts
- Software for calculation
- Single source

## Change context

- Translate data
- What transfers?
- Relevance to task

## 4. Evaluate

### Consider (evaluate)

- Personal assessment
- Better, best?
- More weight?
- How do I feel about this?
- First person

## 5. Present

- For others to consider
- Your thought process
- Goal is to act
- Can take many forms
- Process is the key
- Presentation - critical factor

- Often ignored
- Writing process
- Graphic design for all students

#### Summary of this process

- What is the task?
- Where is the information?
- What does it mean?
- What does it mean to me?
- How can I best communicate what I have learned?
- Process will empower
- A central goal of education...

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