

# The Erosion of Knowledge and the Roles of Professional Societies: Is there a Responsibility Implied?

(Or...Larson's Look at the Future of Finding Oil and Gas)

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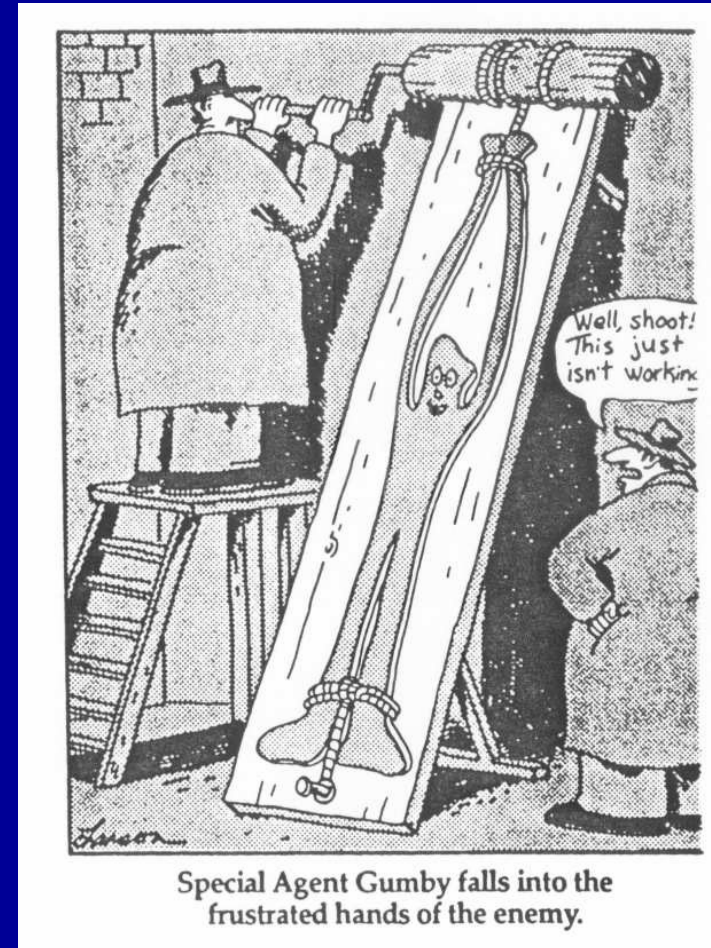


# Industry Prediction\* of Workforce in 1996- was it Correct?

- 1996 estimate of 400,000 geologists, engineers, and geophysicists in energy
- 2000 forecast ~ 100,000 projected
- 2002 extrapolated < 80,000
- 2004 extrapolated < 50,000
- If Workforce is growing in 2004 and beyond...where and how?
- \* A.Anderson Consulting report, 1998 estimates excludes data from China.

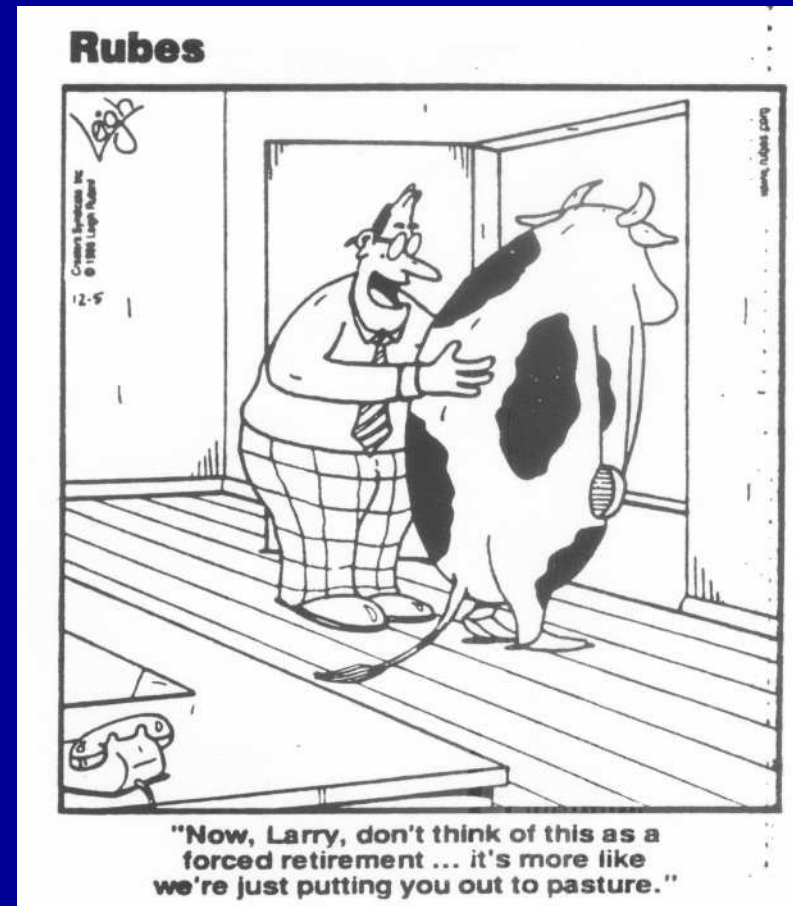
# Loss of Corporate Memory

- University Enrollment
  - Lower enrollment in petroleum
  - Interdisciplinary requirements
- Increased strain on industry workforce



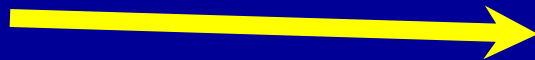
# Loss of Corporate Memory

- Last 20 Years
  - Smaller Staffs
  - Mergers
  - Younger Staffs
- **Where do the mentors go?**



# Loss of Corporate Memory

- To fight this, companies:
  - Provide technology
  - Use vendor specialists
  - Interdisciplinary teams
- But it cannot come to this!



# Information You Can Use= Knowledge

- We need information access from
  - Print publications
  - Digital publications
  - Online databases
  - People who “have done it”...the Mentors
- Where to learn about these sources?
  - “Surf the Net”
  - Academia
  - Professional Societies

# The Professional Society “Node”

- Need to know how people learn; graphic, audio, tactile
- Emphasize understanding “basics” and “case studies”
- Be a partner in digital archiving
- Show successful “Shortcuts”
  - **MENTOR and TRAIN**

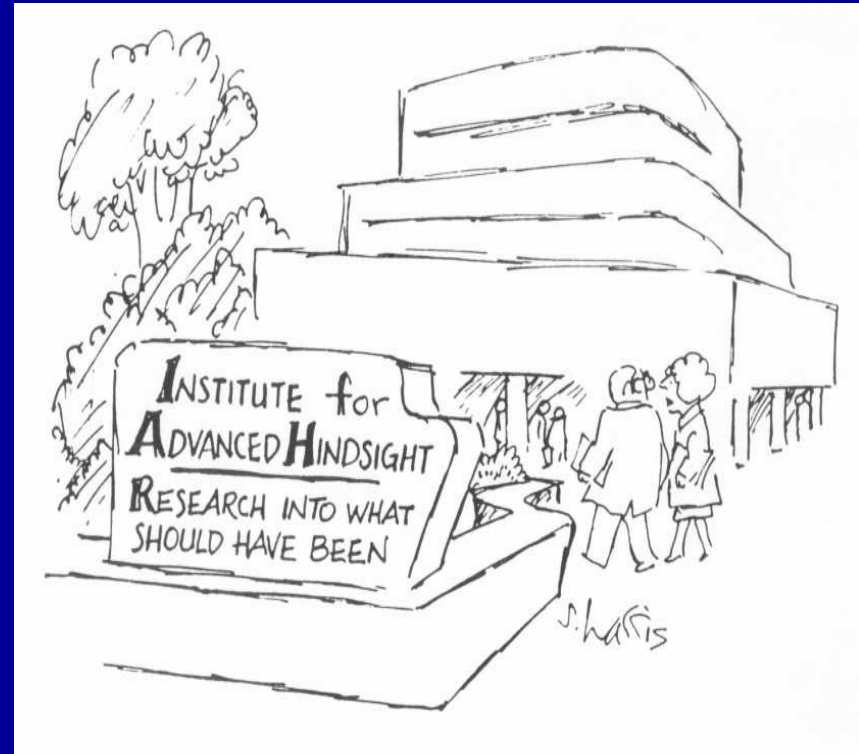
# What About Knowledge and Professional Societies?

- The only difference between a library and dead storage is an index- Put it to use!
- Develop relevant publications
- Show people how to do it- Professional Development
- Help them experience the “hunt”
- Celebrate and learn from the past



# What About Knowledge in the 21<sup>st</sup> Century?

- It is not efficient for every company to create its own library.
- Societies (as publishers) have a responsibility to foster this activity
- Societies can lead in professional development



# The Successful Technical Professional...

- Needs:
  - Rapid access to data
  - Ready-to-use formats
  - Interdisciplinary training
  - The challenge to think differently



# Professional Needs to know:

- Source of the data
  - Quality of the data
- Technical info
  - Projection stats, etc.
  - Presented as quickly as possible
- Documentation on how well the data were utilized
- Where to go?

# **Society Publications are Essential!**

- **TGS has created Regional Guidebooks, Field Trips, Short Courses, a Digest of Important Papers**
- **AAPG provides more than 100 different products on technical and business aspects of E&P**

# Society Publications are Essential!

- SEPM- petrology and paleo that documents key concepts.
- SEG- important geophysical theory and application publications (digital and print)
- SPE- important knowledge on petroleum engineering, drilling topics
- SPWLA- critical understanding on formation evaluation topics

# Knowledge: the Legacy of Societies

- When a society goes out of existence...
  - What happens to the knowledge?
  - What happens to the mentors?
  - Will the “wheel be re-discovered”?
- Requirement of future generations...
  - Tap the knowledge by reading
  - Listen to the oral histories
  - Generate new ideas based on past experiences (LEARN!)

# AAPG/Datapages Example

- Collections Preservation
  - AAPG Bulletin
  - AAPG Special Publications
  - Journal of Sedimentary Research (SEPM)
  - Journal of Petroleum Geology (Scientific Press)
  - Gulf Coast Transactions (GCAGS)

# AAPG/Datapages Example

- Collections (continued):
  - Canadian (CSPG) Bulletin
  - Canadian (CSPG) Special Pubs.
  - New Orleans Geol. Soc.
  - Lafayette Geol. Soc.
  - Okla. City Geol Soc.
  - In process
    - Tulsa Geological Society
    - Ft. Worth Geol. Society
    - Kansas Geol. Society
    - Wyoming Geol. Assoc.
    - others



# Societies can help Balance these Demand and Supply Barriers

- Drilling- deeper, smarter
- Geophysics- 3D, 4D
- Gas utilization- GTL, Pipelines
- Re-supply of offshore operations
- Environmental Remediation
- **Trained work force**

# Society Knowledge Applications Here!

- Deep Shelf, Gulf of Mexico
- < 500 wells TD below 18,000'
- North America, Onshore, Offshore
  - Gas; basin centered, CBM, low BTU
  - Revitalizing Mature Properties
- UK Continental Shelf
  - Satellite fields tied to infrastructure
  - 3D-defined prospects further from land
- Russia, China, West Africa, Middle East

# Learn from the Past

- Don't plug the dike with a straw
- Think about the aerodynamics of your kite!
- **Train, Mentor, Publish...It is Our True Responsibility**





Thank you, Tulsa Geological Society!  
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