Using Assessment to Drive Discipline Development

Integrative Center for Homeland Security

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HTTP://HomelandSecurity.TAMU.edu
979-862-2432
Circular Leverage

- The Challenge of Homeland Security
- The Challenge of HLS Education
- Leveraging Technology → Curriculum
- Leveraging Curriculum → Assessment
- Leveraging Assessment → Teaching
- Leveraging Teaching → Education
- Leveraging Education → Disciplines
The Challenge of Homeland Security

- **Real Dangers:**
  - Technology
  - Enemies
  - Vulnerabilities
  - Natural Catastrophes

- **Really Hard**
  - Example: Galveston

- **Really Different**
  - Cross-Disciplinary / Tensions . . .
    . . . With no clear solution

☆ **Unique Opportunity for Integration!**
The Challenge of Homeland Security Education

Constantly Changing Documents, Strategies, Policies
Mission: The Texas A&M Integrative Center for Homeland Security:

- Explores the entire range of homeland security activities,
- Identifies Research, Educational, and Outreach needs, and
- Helps Match them against the many world class capabilities of the Texas A&M University System.
- Does so in a way that promotes national level visibility, attracting outside resources and support, and encouraging inside cooperation and collaboration.

Approach: Develop Core Construct around which efforts can Converge

1 Overview 7 Federal: Other Agencies 13 HLS Ed / Training
2 Terrorism 8 Congress / Legal Issues 14 HLS Research - Inst
3 Threats 9 State & Local Issues 15 HLS Research
4 Vulnerabilities / CI 10 Emergency Management 16 International HLS Issues
5 Federal: Strategies; Policies 11 Individual 17 Special Issue: Katrina
6 Federal: DHS 12 Private Industry 18 Special Issue: Flu

19 Special Issue: Emerging Strategies & Policies

“Decoding the Genome of Homeland Security”
Tex as an Intellectual Framework

Build the Discipline by expanding the Framework
Research

1 Overview

Water Security Working Group Findings 2005


Date: May 18, 2005

Institution: Environmental Protection Agency

Electronic Link: www.awwa.org/advocacy/govteff/wswgfinalfindings_5162005.pdf

Key Words: Water Security Working Group (WSWG), National Drinking Water Advisory Council (NDWAC), active and effective water security programs, utility community, public health community, Environmental Protection Agency (EPA), Department of Homeland Security (DHS), water and wastewater utilities, Clear AF Act Section 112(r), Center for Disease Control and Prevention (CDC), water security, critical infrastructure, utility partnerships, Water Information Sharing and Analysis Center (WaterISAC), bioterrorism, American Water Works Association (AWWA), utility security peer technical assistance and review program, response programs, water regulations

Summary of Key Issues, Points, Conclusions:

- Eighteen essential findings were made by the WSWG:
  - Security programs should achieve consistent outcomes using utility-specific tactics and implementation approaches that are appropriate for the particular company.
  - Active and effective security programs should address protection of public health, public safety (including infrastructure), and public confidence.
  - There are six significant system failures and four key threats that active and effective security programs should consider.
  - Active and effective programs should be built around eleven principles.
  - Active and effective programs should include fourteen features.
  - Utilities need to update their security programs on a day to day basis.
  - Relationships between the water and wastewater utility and the public health sectors should be strengthened.
  - Improving utility security depends on the development and distribution of reliable, affordable containment monitoring technologies and should be facilitated and supported by the government.
  - EPA, DHS, state agencies, and water and wastewater utility organizations should provide information on the benefits and potential negative consequences of failing to develop active and effective security programs to utilities, owners, and operators.
  - EPA, DHS, state agencies, and water and wastewater utility organizations should develop programs and/or awards that recognize utilities that develop and maintain active and effective programs and that demonstrate superior security performance.
  - EPA, DHS, state agencies, and water and wastewater utility organizations should support development and implementation of a voluntary utility security peer technical and review program.
  - EPA, DHS, state agencies, and water and wastewater utility organizations should help utilities develop active and effective security programs by providing different types of technical assistance, including technology verification information.
Leveraging Technology for Curriculum: TEX → CHLS

Fundamentals of Homeland Security

- **Strategy & Policy**
  - Threat=$\text{Intent} \times \text{Capability} \times \text{Vulnerability}$
    - Terrorism / CounterTerrorism
    - International / Domestic
  - Threat=$\text{Intent} \times \text{Capability} \times \text{Vulnerability}$
    - Nuc, Chem, Bio, Radio, Cyber, Conv, EMP
    - Natural Disaster
  - Threat=$\text{Intent} \times \text{Capability} \times \text{Vulnerability}$
    - Critical Infrastructure & Protection

- **Federal Homeland Security**
  - Strategy, Policy, Budget Org, Agencies, Functions

- **State & Local**
  - NIMS, NRF
  - Responsibilities, Plans, Case Specifics

- **Business**
  - HLS of Business
  - Business of HLS

- **Research & Policy Project**
Leveraging Technology for Curriculum: CHLS

Fundamentals of Homeland Security

- **Strategy & Policy**
  - Threat=\text{Intent}\times\text{Capability}\times\text{Vulnerability}
  - Terrorism / CounterTerrorism
  - International / Domestic

- **Federal Homeland Security**
  - Strategy, Policy, Budget Org, Agencies, Functions

- **State & Local**
  - NIMS, NRP
  - Responsibilities, Plans, Case Specifics

- **Business**
  - HLS of Business
  - Business of HLS

- **Research & Policy Project**

Courses in Homeland Security:

- **Fundamentals**
- **Terrorism**
- **WMD Policy for Response/ Recovery**
- **Critical Infrastructure**
- **State and Local**
- **DOD, HLS and HLD**
- **Business and HLS**
  - **Individual Study** (required)
  - **Cyber**
  - **Emergency Management**

**Labs**

- National Preparedness Guidelines
- National Infrastructure Preparedness Plan

- **Key Point** - - Model Process for development of Interdisciplinary Masters Degree

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“Assessing” the Curriculum: TEX → CHLS 3.0

Visual Analytics

Visual Analytics is the science of analytical reasoning facilitated by interactive visual interfaces. People use visual analytics tools and techniques to synthesize information and derive insight from massive, dynamic, ambiguous, and often conflicting data; detect the expected and discover the unexpected; provide timely, defensible, and understandable assessments; and communicate assessment effectively.

Leveraging Curriculum → Assessment: Thinking Inside the Box

can start doing more of the right things

9:52 PM: John [your tribes approach reminded me of it]
9:52 PM: Heather [Well, the tribal mentality is about human vs. non-human. Those who don't belong to "my" tribe aren't human, and therefore don't deserve what I have. Sometimes, they don't deserve to live. That becomes a hard mentality to shake.]
9:52 PM: John [his message is to improve a corner at a time]
9:52 PM: Kasey [what are the right things? from whose perspective?]
9:52 PM: Heather [It's one I think, is reflected very much in the mindset of al Qaeda and the...]

Leveraging Curriculum → Assessment: CHLS Program

Bush School Goals (Bush School)

CHLS Goals (Program Director)

Course Objectives (Faculty)

Lesson Objectives (Faculty)

Activities, Rubrics & Evaluation of Students (Faculty)

Students’ Evaluation of Prof and Course (students)
STUDENT COMPETENCIES

CREATE
- Create new programs/policies

ANALYZE
- Formulate an explanation
- Research & Place in Context

EVALUATE
- Sound Judgment; Prioritize

APPLY
- Persuasive Delivery

REMEMBER
- Communicate (message and means)

KNOW
- Basic understanding of facts & concepts
Bush School
Certificate in Homeland Security
A Program of Inquiry
- CHLS Program Goals

1. Provide Broad Understanding of Homeland Security
Produce students with a broad understanding of homeland security, ready to work in that field upon graduation.

2. Provide Inquiry Based Knowledge for the Long Term
Provide our students with a nationally recognized curriculum and learning experience that prepares them to contribute to strategy and policy issues in the field of homeland security, both today and for the foreseeable future.

3. Advance Student Learning Up the Cognitive Ladder
Advance the students through this curriculum in a way that moves them up our cognitive and performance taxonomy. (Our TEXonomy, adapted from Bloom’s Taxonomy, consists of Understand/Remember, Apply, Analyze, Evaluate, Create -- with Communicate underpinning the entire framework)

4. Promote Program / Curriculum / Faculty Growth
In the process of educating our students, contribute to the continuing development of our program, our curriculum, and our faculty.

5. Advance the Discipline and Serve the Nation
Share that development with others in ways that advance and develop the discipline and serve the nation.
Leveraging Curriculum → Assessment: CHLS Design

2008-2009 Homeland Security, CHLS

Goals
1. Provide Broad Understanding (Final)
2. Provide inquiry based knowledge for the long term (Final)
3. Advance student learning up the cognitive ladder (Final)
4. Promote program/curriculum/faculty growth (Final)
5. Advance the discipline and serve the nation (Final)

Outcomes/Objectives
6. Program Objectives (Final)
   1. Understand and Remember Key HLS issues & tensions (Related Goals: 1, 2, 3) (Final)
   2. Apply Knowledge and Research to provide context (Related Goals: 1, 3) (Final)
   3. Analyze knowledge and research to explain (Related Goals: 2, 3) (Final)
   4. Evaluate and form sound judgments (Related Goals: 2, 3) (Final)
656 Course Objective supported by Lesson 01

1) Understand and Remember Key Homeland Security Issues / Tensions

656 Lesson 1 Objective:

Understand and Remember: The fundamental tensions that underlie the emerging concept of Homeland Security in the United States; The broad range of Homeland Security issues and challenges faced by the nation, today and in the future; The frameworks used in this course and this program to think through the concepts of homeland security; The structure of this course and the research tools available to students through CHLS and the Integrative Center for Homeland Security.

656 Lesson 1 Discussion Question:

After reading the various authors assigned and listening to the lecture, in 500 words (about 1 page single spaced) explain how you understand the fundamental tensions and issues of homeland security.

656 Lesson 1 DQ 1 Assessment:

Coherent argument? Logically constructed? Use of sources beyond opinion to support? Technically correct?
To design **Lesson Objectives** and **Lesson Requirements** use **Action / Task Design Package**

### Learning Level 1: Know and Remember

<table>
<thead>
<tr>
<th>Activities/Action Verbs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Observe</td>
</tr>
<tr>
<td>- Research</td>
</tr>
<tr>
<td>- Locate</td>
</tr>
<tr>
<td>- Listen</td>
</tr>
<tr>
<td>- Identify</td>
</tr>
<tr>
<td>- Discover</td>
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<tr>
<td>- Match</td>
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<tr>
<td>- Ask</td>
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<tr>
<td>- Arrange</td>
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<tr>
<td>- Define</td>
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<tr>
<td>- Duplicate</td>
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<tr>
<td>- Label</td>
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<tr>
<td>- Memorize</td>
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<tr>
<td>- List</td>
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<tr>
<td>- Name</td>
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<tr>
<td>- Order</td>
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<tr>
<td>- Recognize</td>
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<tr>
<td>- Relate</td>
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<td>- Recall</td>
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<td>- Repeat</td>
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<td>- Reproduce</td>
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<tr>
<td>- State</td>
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<tr>
<td>- Classify</td>
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<tr>
<td>- Describe</td>
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<tr>
<td>- Discuss</td>
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<tr>
<td>- Explain</td>
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<tr>
<td>- Express</td>
</tr>
<tr>
<td>- Indicate</td>
</tr>
<tr>
<td>- Report</td>
</tr>
<tr>
<td>- Restate</td>
</tr>
<tr>
<td>- Review</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Products that require recalling information and/or explaining ideas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Quiz—Multiple Choice, TIF, etc.</td>
</tr>
<tr>
<td>- Book report</td>
</tr>
<tr>
<td>- Oral report</td>
</tr>
<tr>
<td>- Article Summary</td>
</tr>
<tr>
<td>- Article Explanation</td>
</tr>
<tr>
<td>- Finding Additional Sources</td>
</tr>
<tr>
<td>- Capture Main Points</td>
</tr>
<tr>
<td>- Summarize for annotated bibliography</td>
</tr>
</tbody>
</table>

### Learning Level 2: Apply

<table>
<thead>
<tr>
<th>Activities/Action Verbs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Apply</td>
</tr>
<tr>
<td>- Align</td>
</tr>
<tr>
<td>- Teach</td>
</tr>
<tr>
<td>- Construct</td>
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<tr>
<td>- Manipulate</td>
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<tr>
<td>- Experiment</td>
</tr>
<tr>
<td>- Choose</td>
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<tr>
<td>- Demonstrate</td>
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<tr>
<td>- Dramatize</td>
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<tr>
<td>- Employ</td>
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<tr>
<td>- Illustrate</td>
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<tr>
<td>- Operate</td>
</tr>
<tr>
<td>- Practice</td>
</tr>
<tr>
<td>- Schedule</td>
</tr>
<tr>
<td>- Sketch</td>
</tr>
<tr>
<td>- Solve</td>
</tr>
<tr>
<td>- Use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Products that use information in the correct format, context or situation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Lead a discussion or chat</td>
</tr>
<tr>
<td>- Use data</td>
</tr>
<tr>
<td>- Solve a simple/direct problem</td>
</tr>
<tr>
<td>- Write an outline</td>
</tr>
<tr>
<td>- Fit concepts to current or past events</td>
</tr>
</tbody>
</table>

### Learning Level 3: Analyze

<table>
<thead>
<tr>
<th>Activities/Action Verbs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Classify</td>
</tr>
<tr>
<td>- Categorize</td>
</tr>
<tr>
<td>- Separate</td>
</tr>
<tr>
<td>- Group</td>
</tr>
<tr>
<td>- Compare</td>
</tr>
<tr>
<td>- Dissect</td>
</tr>
<tr>
<td>- Contrast</td>
</tr>
<tr>
<td>- Appraise</td>
</tr>
<tr>
<td>- Calculate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Products that disaggregate information, compare parts, and explore relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Policy analysis</td>
</tr>
<tr>
<td>- Op-Ed pieces</td>
</tr>
<tr>
<td>- Information paper</td>
</tr>
<tr>
<td>- Simple role play</td>
</tr>
<tr>
<td>- Case study</td>
</tr>
<tr>
<td>- Traditional essay</td>
</tr>
<tr>
<td>- (analysis without evaluation)</td>
</tr>
<tr>
<td>- Pure research</td>
</tr>
</tbody>
</table>
Here is an example of how Lesson Requirements satisfy Lesson Objectives which support Course Objectives which support Program Objectives.

INTA 685 Week#1

**Topic:** Review TEX & topics: Terror / Disaster / “Overview” of HLS

**Objectives/Learning Level:**

1/2 Understand and Remember
- Retrieve info / Practice use Library on line
- Retrieve info / Practice use TEX on line

3/4/5 Apply, Analyze and Evaluate
2. **Apply** your knowledge of homeland security to **review** the assigned subjects in the library and **find** several articles on some aspect of the subject. **Analyze** the articles and write summaries **explaining** the utility of the article to solving a homeland security problem in the assigned subject area.
3. **Apply** your knowledge of homeland security to **find and review** entries in a specific area of TEX. **Analyze** the summaries you find **explaining** the utility of the article to solving a homeland security problem in the assigned subject area.
4. **Apply** your knowledge of homeland security to **review** TEX as a whole. **Evaluate** the entire research tool to outline areas where existing coverage is thin.
INTA 685 Week#1

Topic: Review TEX & topics: Terror / Disaster / “Overview” of HLS

Requirements:

1) Post your bio on line.

2) Ensure you can apply your knowledge of homeland security by maneuvering through the online library and understanding what you find. You will not be able to complete this research project using Google and Yahoo alone. For Week 1, find 3 periodical articles on Homeland Security topics in the TAMU library, and write a 200 word summary of each article. Post all 3 summaries as a single discussion thread response.

2) Solidify your background knowledge and apply that knowledge by mastering the skill of using TEX (our online research tool) by reviewing the site in general, and then focusing your time on terrorists, terrorism, and natural disasters. You should master the structure and manipulation of the Web site, read as many summaries as you can on these issues, and read the base documents that seem to best match your research interests. Please respond in 400 words on what you learned about researching these subjects by using TEX. In particular, analyze what makes summaries useful to a researcher, and what shortcomings might make an entry difficult to use.

3) Evaluate TEX as a whole. Identify one area where you think coverage is thin. In a single discussion thread response, list several places you might look to find sources that would improve coverage in this area.
# Example Discussion Rubric

<table>
<thead>
<tr>
<th>Points</th>
<th>Quality</th>
<th>Relevance</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>The posting is a new contribution reflective of the student’s opinions and is supported by accurate examples and/or evidence.</td>
<td>The posting is on topic and builds on the overall discussion.</td>
<td>The posting is logically organized and has no spelling, punctuation, or grammatical errors; meaning of the posting is clearly presented.</td>
</tr>
<tr>
<td>2</td>
<td>The posting is a new contribution reflective of the student’s opinions, however, it is not supported by accurate examples and/or evidence.</td>
<td>The posting supports the topic but strays from the discussion.</td>
<td>The posting is adequately organized; if any errors are found, they are so minor that the meaning is still reasonably clear.</td>
</tr>
<tr>
<td>1</td>
<td>The posting is largely a restatement of prior postings but incorporates a minor new contribution.</td>
<td>The posting marginally supports the topic and does not add to the discussion.</td>
<td>The technical aspect of the posting – organization, spelling, grammar – has several problems, such that the meaning is occasionally obscured.</td>
</tr>
<tr>
<td>0</td>
<td>The main idea in the posting is a restatement of prior postings and no new contribution is present, and/or inaccurate evidence/examples are provided.</td>
<td>The posting is irrelevant to the topic.</td>
<td>The posting is poorly organized, has serious errors in sentence structure or usage, thus the posting is hard to understand.</td>
</tr>
</tbody>
</table>
INTA 656 Fundamentals

1. Lesson 1

#1 Did the students achieve the objectives desired in Lesson 1 to standard? Did they get it? Do it?

#2 Do we need to change the readings?

#3 Do we need to change the requirements?
Leveraging Teaching \(\rightarrow\) Education:

1) The Importance of Inquiry

<table>
<thead>
<tr>
<th>Training: Known Solutions to Known Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\text{(learning existing answers)})</td>
</tr>
<tr>
<td>• <strong>Education:</strong> New Solutions to New Problems</td>
</tr>
<tr>
<td>(\text{(learning to frame new questions and answers)})</td>
</tr>
</tbody>
</table>

**The Key:**

• **Inquiry:** Examining Cause and Effect – Lines of Logic

• **Research:** Information Collection and Interpretation

• **Operators** want to know **how** - the best way to do something
  – Start point is operations, doctrine, policy, agendas

• **Educators** want to understand **why** that is the best way
  – Start point is question, theory, data, process
Leveraging Teaching → Δ Education:

2) Promoting Inquiry through an Information Environment
# Overview

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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

## Examples
- President Bush 41
- Secretary HLS
- Chair, House Committee
- Director, TSA
- President, Federation
- Lead HLS Correspondent
- Commander NORTHCOM
- Dpty Mayor San Diego
- Mayor, fmr Gov Virginia (Chair of NCORP)
- Bomb Squad Robot
- CPR for Dogs

### HLS Ed/Tng
- Examples
- Show Rundown: Driven by TEX

### International Issues
- President Bush 41
- Secretary HLS
- Chair, House Committee

### Special Issues
- President, Federation
- Lead HLS Correspondent
- Commander NORTHCOM
- Dpty Mayor San Diego
- Mayor, fmr Gov Virginia (Chair of NCORP)
- Bomb Squad Robot
- CPR for Dogs

### Red is planned Green is scheduled Black is done Purple is future agreed

<table>
<thead>
<tr>
<th>Segments</th>
<th>03 Feb</th>
<th>10 Feb</th>
<th>17 Feb</th>
<th>24 Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promo</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billboard</td>
<td>1:00 min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>News 5:00</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Music:
- Credits Intro: 30
- 06 Jan show RM 4 Feb
- 14 Feb DC 7 Jan show RM 4 Feb
- 21 Feb DC 03 Feb show Need RM
- 28 Feb special show Need RM

### Media:
- Inside 3:20
- All Randy & Dave
- Tom Locher Nat Sec Reform 06 Jan
- Franken Cyber Atk DOD Computers
-Senate Green Card Marriage 06 Jan

### Inside Guest 9:10
- All Randy & Dave
- Tom Locher Nat Sec Reform 06 Jan
- Achorio Zero Day Threat 06 Jan
- Matt Alexander how to break an terrorist 21 Jan

### Exit w/ music: 15
- Music: Intro 0:40
- Media Outside 3:20
- All Randy & Dave
- Micky McCarter House FEM A clash 21 Jan
- Shane Harris hacking Hill 21 Jan

### Outside Guest 9:10
- All Randy & Dave
- Moghadam Globalization of Martyrdom 06 Jan
- Fruity Fleming Drug Wars 21 Jan
- George Hadorn Disaster Comes 21 Jan

### Perspectives
- 8:00
- Pet Pocket Emergency Guide Coffin 06 Jan
- Leonard Secret Law 06 Jan 6:30
- Daniel Dem science fiction 14 Jan
- Shaun Harris follow up cyber 21 Jan

### Law & Order Theme
- 170 “short takes”
- Streamed worldwide
- Archived by category
- iPod download

###逦 Ignition
- 2 weekly radio shows
- Streamed worldwide
- Archived by category
- iPod download
- 170 “short takes”
Coming next week ...

Exclusive interview with George H.W. Bush, 41st President of the United States

Subject: 'The Bush-Clinton Disaster Recovery Projects'

Broadcast: Tuesday, Jan. 6, on KAMU 90.9 FM at 7 p.m. Central [with online simulcast]
Podcast: Wednesday, Jan. 7, on Texas A&M iTunes U.
Audio: Friday, Jan 9, Issue of Hear It Now

Click here to forward this newsletter to a colleague

Watch a 'bring it home' video

In the first video from our YouTube series, "Bring It Home," ICHS Director Dave McIntyre explains the meaning and history behind the phrase, "homeland security." This series of videos is produced by KAMU-TV at Texas A&M University in College Station.
Here’s the 2d Point: 
Apply Assessment to our 
Electronic Environment to Promote Inquiry

Here’s the Point: 
Create an Information Dense 
Learning Environment to Promote Inquiry

• 64 Scheduled
• 8 Hrs of Ed TV to follow
“Assessing” the Information Environment:
Analysis → Focus

Visual Analytics

Example: Semantic Processing

- Analyzing and matching the meaning of words and phrases in electronic documents.
- Can be full-automated using advanced machine learning techniques.

Content Visualization

Using Library Scatterplot

- Or can be guided, such as providing a short list of related keywords.
  - Could be extracted from interview topics.
Leveraging Education → Change

- Opportunities between Disciplines
- Opportunities between Schools
- Opportunities between Agencies
- Opportunities between Nations
- Opportunities to Change the Future

- Which will require New Discipline w/ New Curriculum
Circular Leverage

- The Challenge of Homeland Security
- The Challenge of HLS Education
- Leveraging Technology → Curriculum
- Leveraging Curriculum → Assessment
- Leveraging Assessment → Teaching
- Leveraging Teaching → Education
- Leveraging Education → Disciplines
What Would Winning Look Like

• New Technology, New Economy, New Learning
• Improved Responder Skills
  – Initiative, Early Decisions, Structured Thinking
• Improved Government Capabilities
  – ICS, NIMS, NRP, Analysis, Fusion, Policy, Doctrine
• Much Better Use of Resources
• Improved Interagency / Interjurisdiction
• Improved Deterrence / Security
• Reinvigorated International Community
• Relegitimized Government
• Reinvigorated Citizenship and Engagement
Using Assessment to Drive Discipline Development

Integrative Center for Homeland Security

Dr. David H. McIntyre
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979-862-2432