
NATIONAL FIRE PROTECTION ASSOCIATION
NFPA


RESEARCH FOUNDATION
E NFPA MISSION
RESEARCH FOR TH

TOPICS – The Future of Wearable Technology

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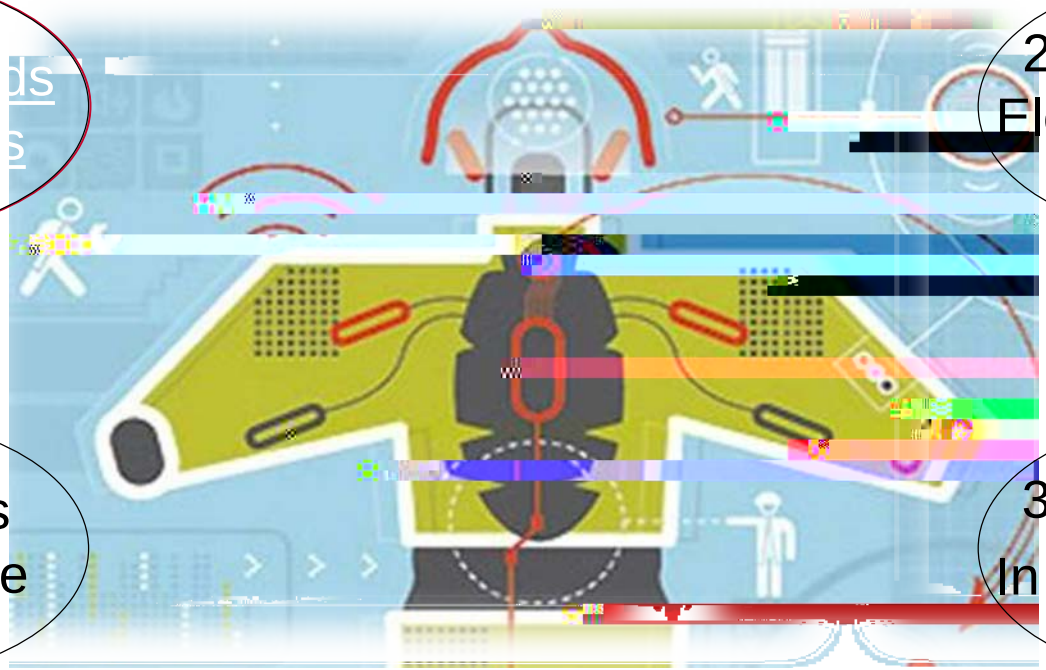


2) Fire Service Electronic Safety Equipment

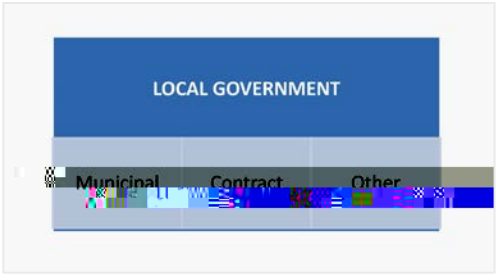
3) Data, Data, In a Sea of Data

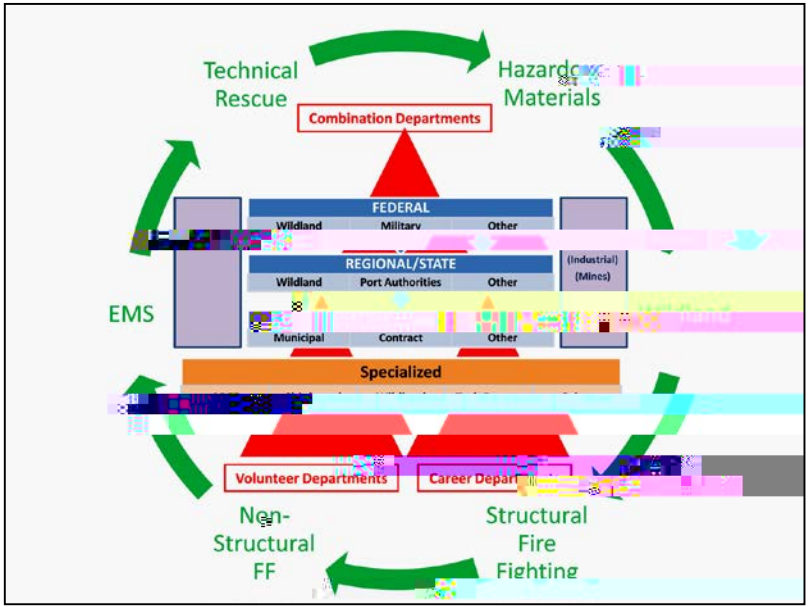
4) Thoughts for the Future

A Few Words on the Basics

as an organization

Working with Fire Departments and Fire Brigades





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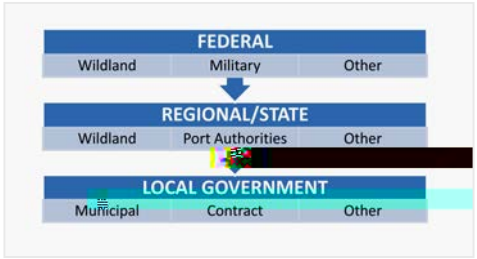

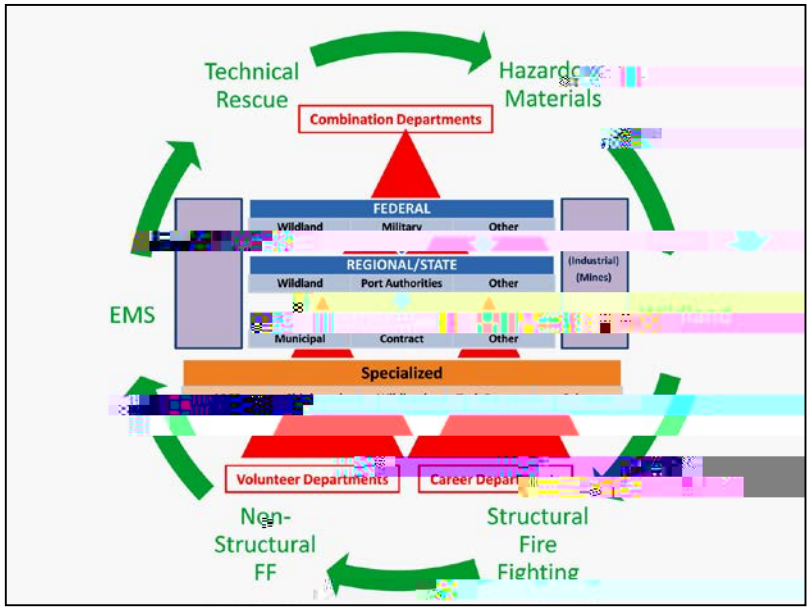

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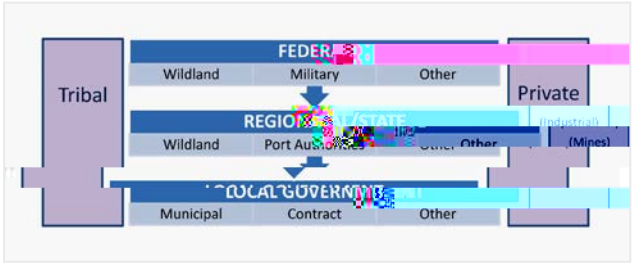

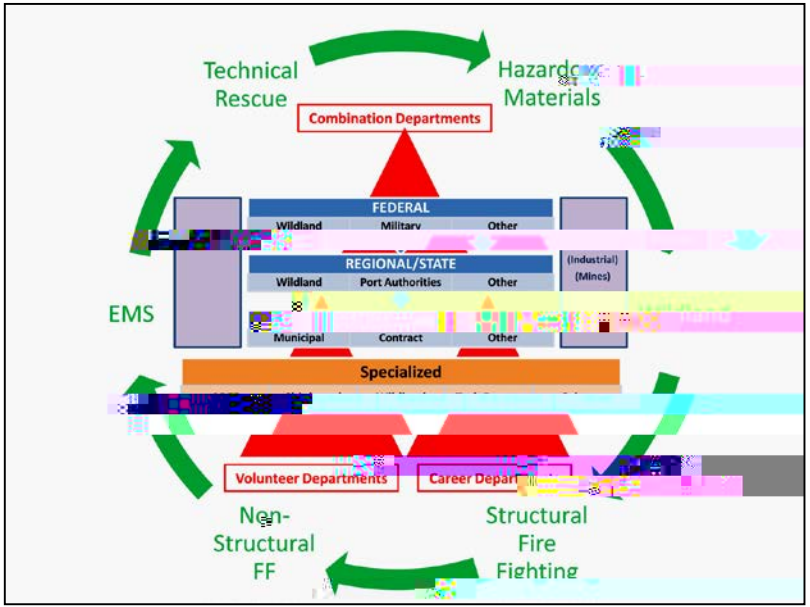

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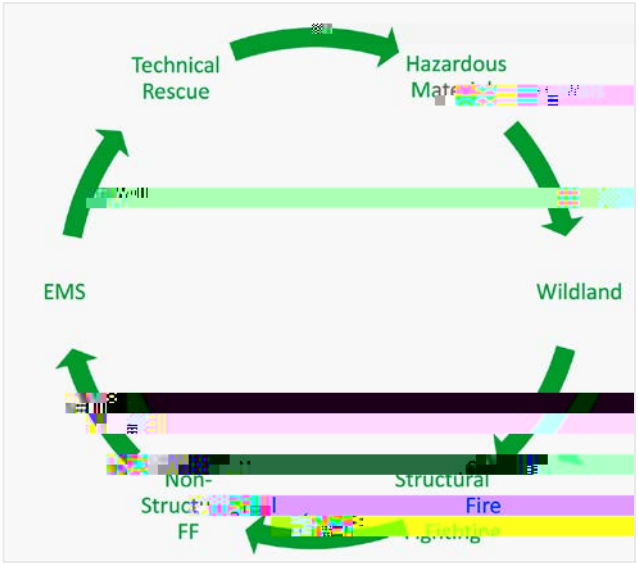

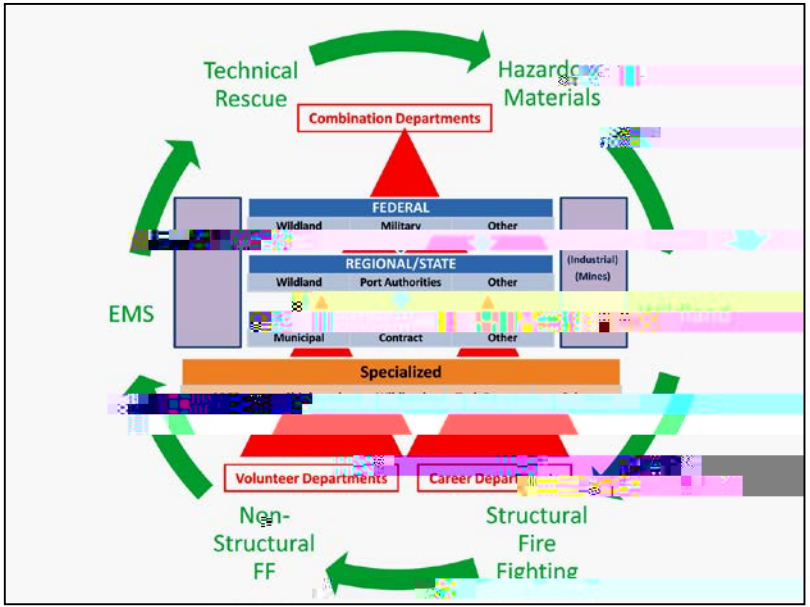

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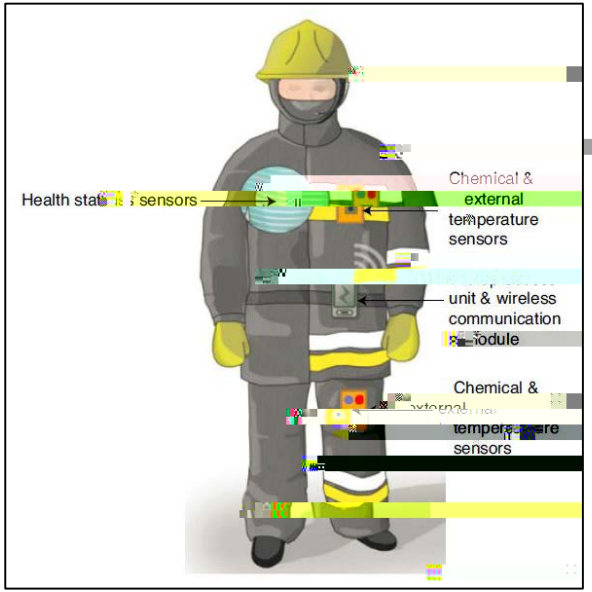
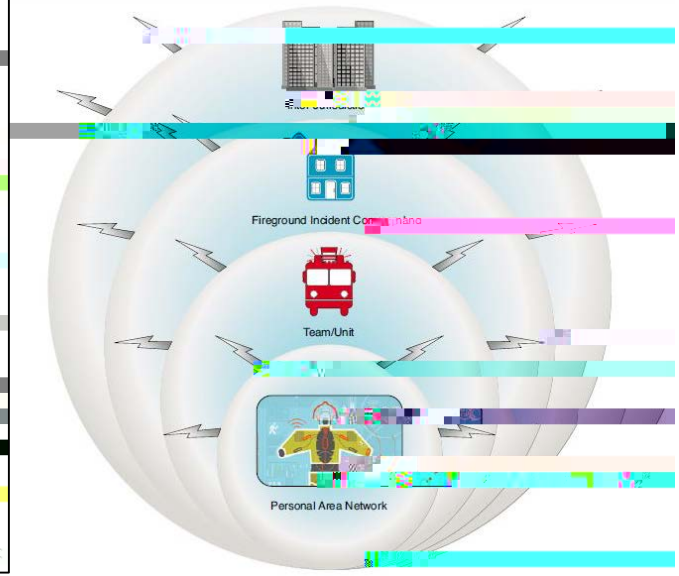
- Generally focused on the Personal (and Personnel) Area Network
- Carried directly by a fire fighter





A Few Words on the Basics

TOPICS – The Future of Wearable Technology

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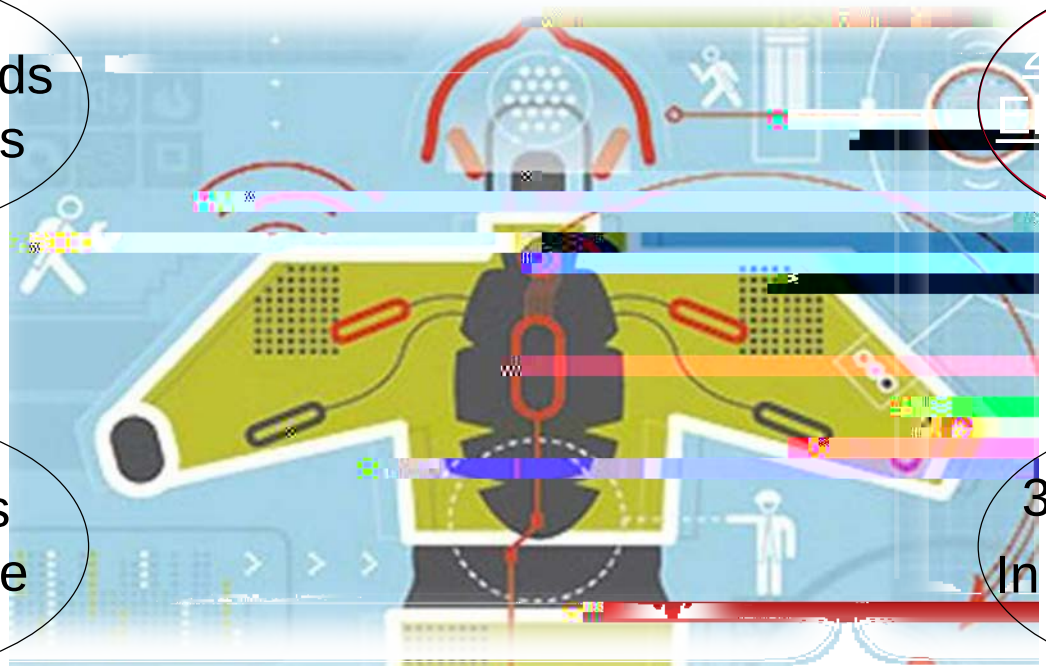


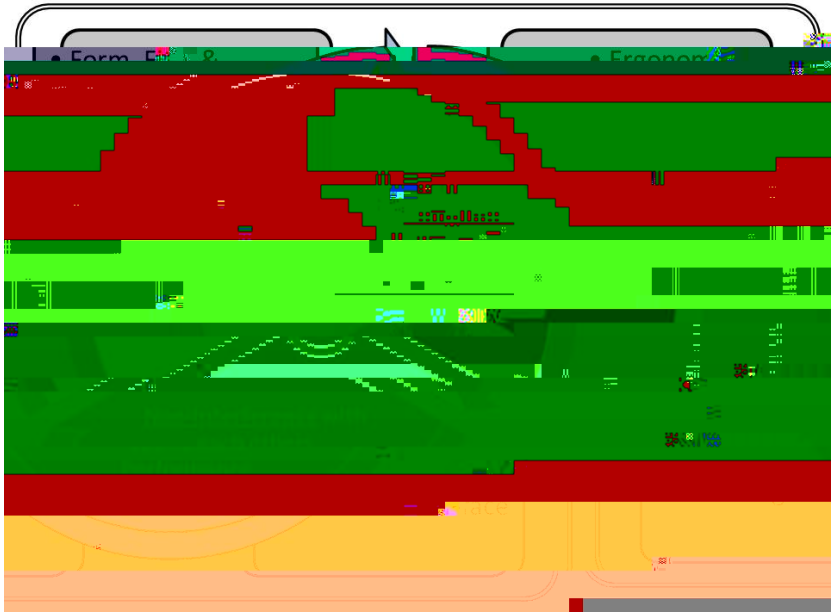
4) Thoughts for the Future

3) Data, Data, In a Sea of Data

Fire Service Electronic Safety Equipment

Fire Service Electronic Safety Equipment

- Key Interoperability Performance Characteristics for ESE



Fire Service Electronic Safety Equipment

- ESE Component Attributes
- A.K.A., the “Illities”
- Failure of any single
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Fire Service Electronic Safety Equipment

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- ESE Intrinsic Safety
  Trade-oe2

Fire Service Electronic Safety Equipment

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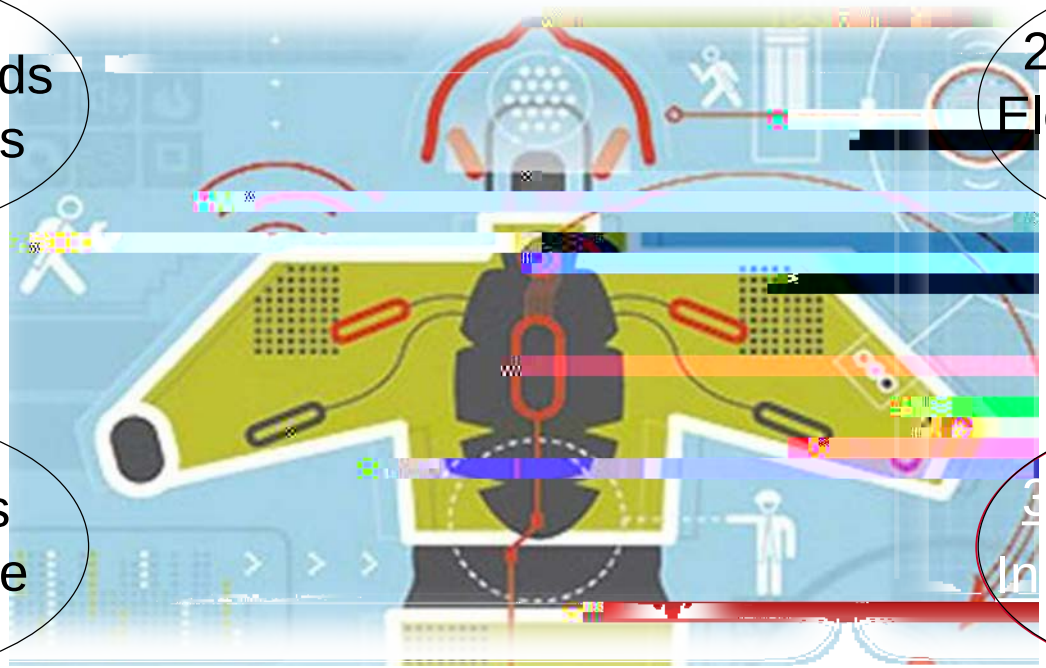

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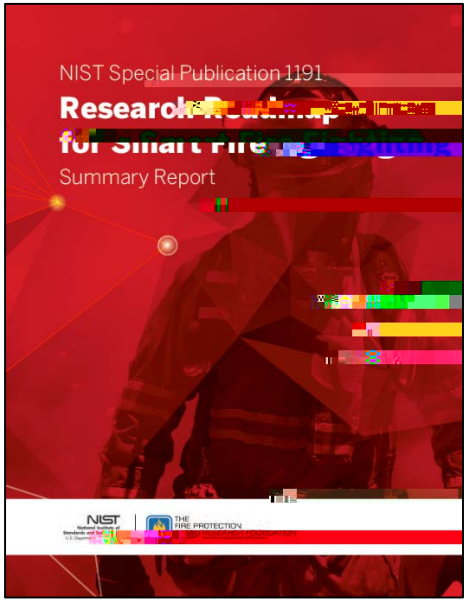
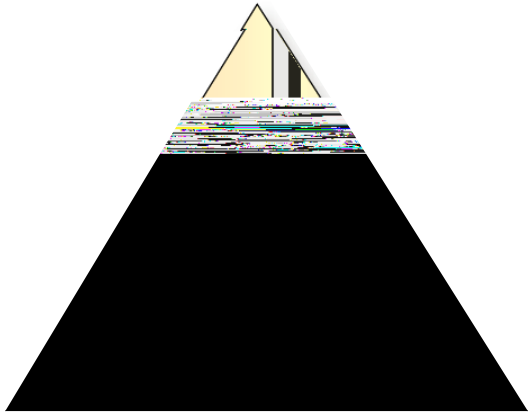
- Based on the ProjectReport available on the FPRF and NIST websites

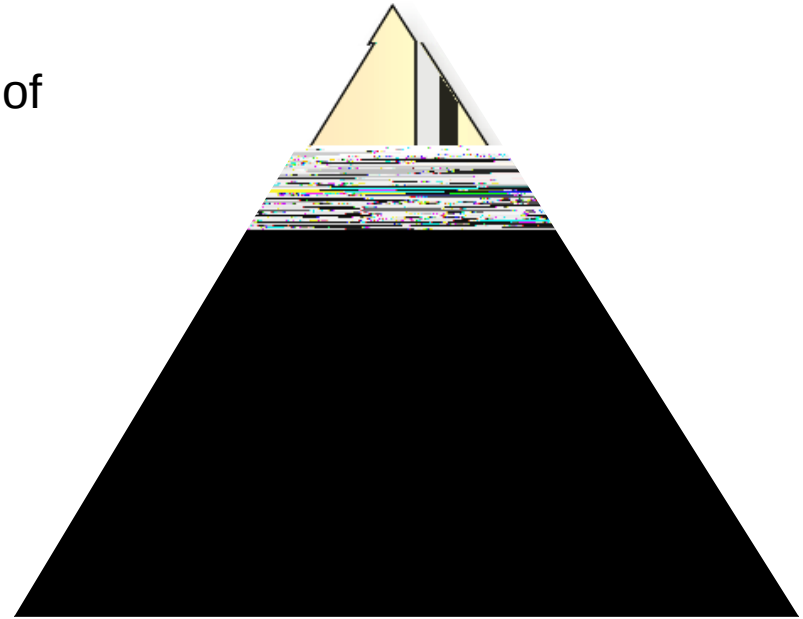




www.nfpa.org/SmartFireFighting

Data, Data, In a Sea of Data

- The New Era of Cyber Physical Systems
- World of Cyber Physical Systems composed of three basic areas:
  1) Gathering of data (communication)
  2) Processing of data (computation)
  3) Use of data (targeted decision-making)

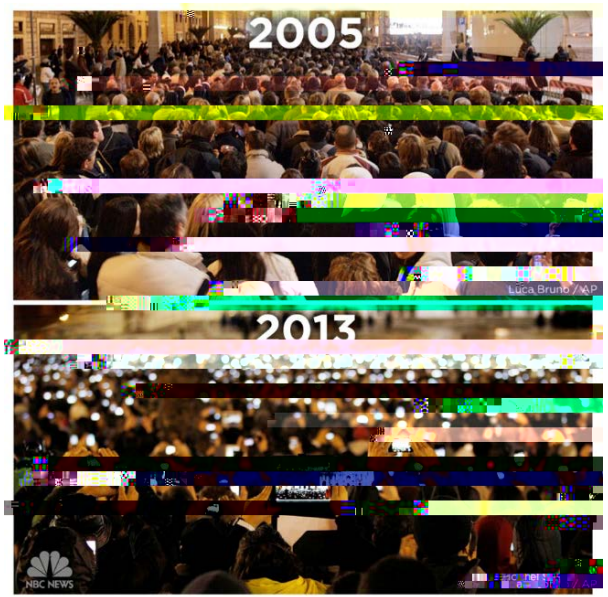


Data, Data, In a Sea of Data

- Today's World is Increasingly Sensor Rich

Data, Data, In a Sea of Data

- Example: Smart Phones
- Purposes they serve:
  - Communication
  - Recording
  - Sensing
  - Information
  - Other
- Portal into another world…

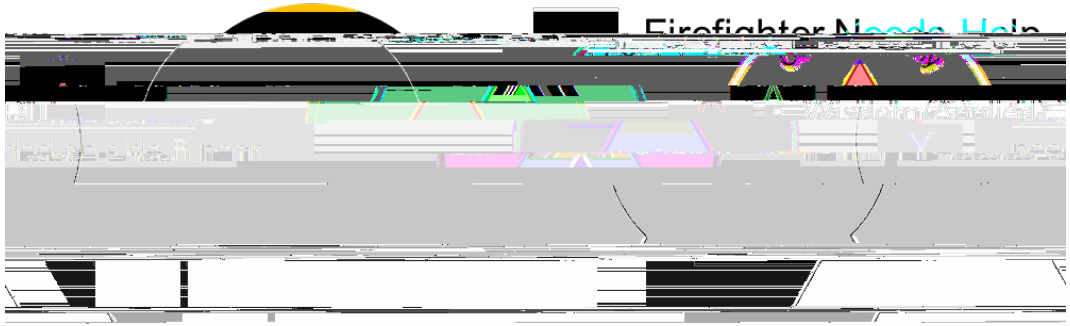


Crowds at Papal Elections in 2005 & 2013
(Courtesy of NBC News)

Data, Data, In a Sea of Data

Data, Data, In a Sea of Data

- On the backbone of **Technology**, we harvest **Data**
- **Data** given context yields **Information**
- **Information** given meaning yields **Knowledge**
- **Knowledge** given insight yields **Wisdom**
- With **Wisdom** comes **Power** to control your destiny



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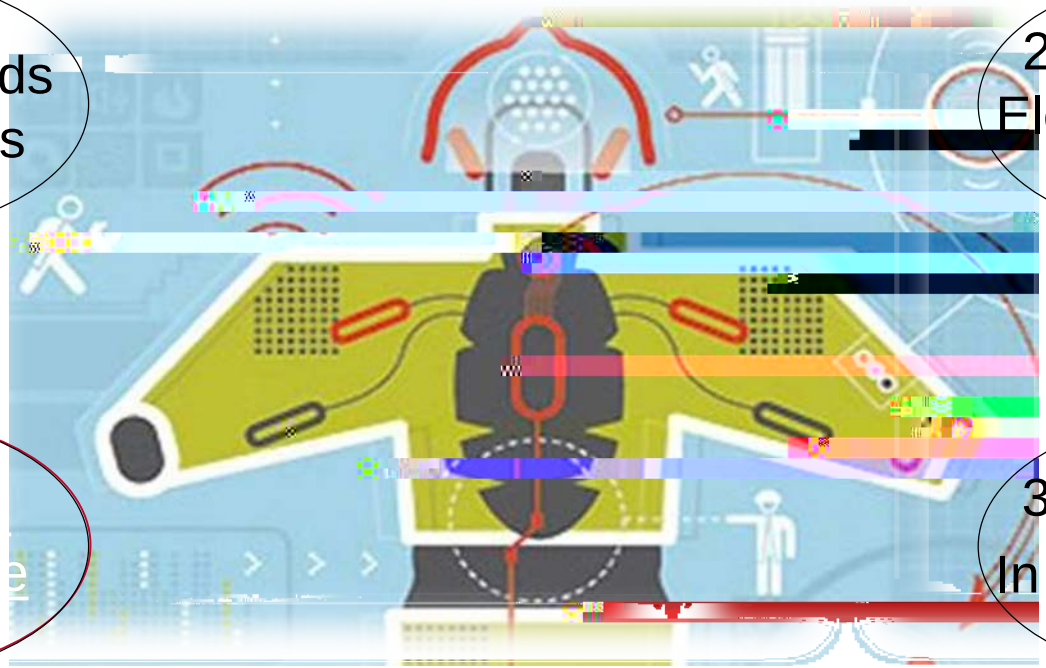

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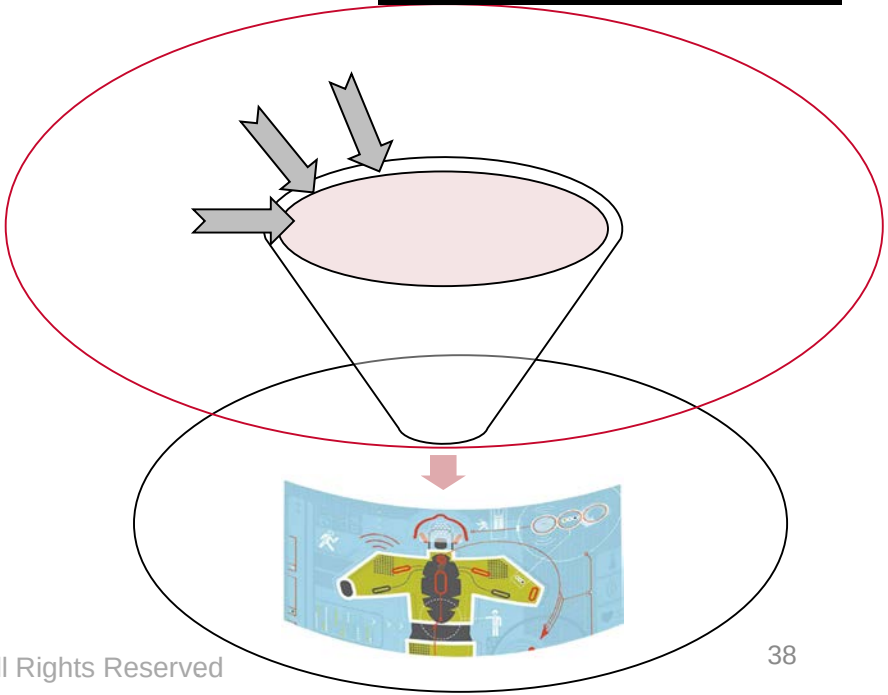
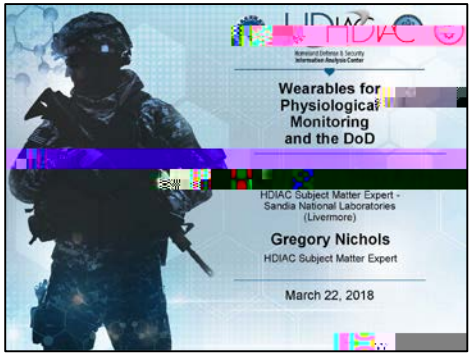
Thoughts for the Future

- Technological development is NOT the greatest challenge
- We are rapidly solving the technological challenges, but the greater challenges that are surfacing are legal, social, cultural, etc. (e.g., privacy of data, confidentially, proprietary information, competition, and so on).



Thoughts for the Future

- We do not necessarily need to invent or re-invent anything, but instead work with others who can and are doing this now (e.g., military, industry, etc.)



Thoughts for the Future

- With Progress will come Setbacks
- Going forward, what will be the

Thoughts for the Future

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- Where will Wearable Technologies go next?
- As a Case Study: Consider Hearing Aids
- Fire Fighters with Hearing Impairments Need Assistance.
- Why Is This Not Being Developed for All Fire Fighters,

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