Data Sources for Human Behavior

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This presentation will give the audience an overview of sources of data for understanding human behavior for M&S efforts. This presentation falls under the presentation top are of "Socio-cultural data acquisition, extraction, and management." Open sources of data will be discussed, as well as those found in academic settings, federally supported public archives of data, peer-reviewed journals as well as appropriate search terms to look for data sources will be used. The reliability and utility of different data sources or media will be compared, for example the merits of archived footage, laboratory methods, self-report, observation, etc. The utility and limitations of relying solely on Subject Matter Experts will also be discussed. The goal of the presentation is to give those without a social science background an overview of the methods and procedures available to find data and evaluate the relative utility, validity, and reliability of that data for M&S efforts.
Academic primary sources

• Have search done by professional
• Search Discipline Databases
  – Social Sciences Citation Index
  – Psycinfo
  – Medline
  – Dissertation Abstracts
  – Others, consult with librarians
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**Find Databases**
- containing articles, books, data, & more: Learn more...
  - by subject: Social Sciences
  - by type: All Resource Types
  - by title or keyword(s): afghanistan

**Display:** all results

**List databases by title:** ALL O-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

**Find Articles**
- search across multiple databases using a Quick Search or Custom Search
- General/Multidisciplinary

**Bibliography of Asian studies**
(Also known as BAS)

A comprehensive bibliographic index to articles and other published materials on all fields of Asian Studies.

bookmark as: http://www.columbia.edu/cgi-bin/cul/resolve?ANH6327

- Mongolia, India, Pakistan, Bangladesh, Sri Lanka, Bhutan, Maldives, Sikkim, Afghanistan...

**International directory of Middle East scholars**
(Also known as IDMES)

Searchable, detailed information about Middle East Studies scholars throughout the world.

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- International directory of Middle East scholars | IDMES | searchable, detailed information about Middle East Studies scholars throughout the world. | Middle East Studies scholars, all disciplines. | Middle East, North Africa, Afghanistan, Algeria, Armenia, Bahrain, Cyprus, Djibouti, Egypt, Ethiopia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malta, Mauritania...
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Once you find article that fits

- Click on author’s name and automatically access other works,
- Click on co-authors
- Other articles that cite the work
- Journals that publish relevant work
- Keywords and Subject Headings
Keywords and Subject Headings

Key Concepts
functional magnetic resonance imaging, neural substrates,
Subject Headings
*Attachment Behavior
*Brain
*Electrical Activity
*Neural Pathways
*Race, Skill, Race
How to roughly judge utility

- State of the art review paper of peer review articles
- Peer-reviewed articles
- Books based on review of above
- Chapters based on review of above
- Proceedings of conferences
- Tech reports with DATA and analyses
- Expert qualitative analyses
- First-hand accounts/observations
- Speculation/White Papers/Theses without data
- Wiki (no, no, no)
• Why should I wade through all this research when I can just ask a Subject Matter Expert (SME)?
• Research into human behavior has all been done

• Answers to M&S questions are already known by social scientists, all you need to do is
  – Ask the right person
  – Find the right article

• Therefore, the needed algorithm has already been derived

ALL WRONG
Limitations of SME’s for M&S

- Sometimes the Subject Matter information just doesn’t exist, so it’s impossible to find a Subject Matter Expert.
- An SME can give well informed experienced opinion and observations, but mostly likely not hard data or algorithms.
- No SME can take the place of systematic experimentation or investigation.
  - Cannot provide concrete measures, numerics, algorithms.

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TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.
Modeling and Simulation of human social cultural behavior REQUIRES investment in BASIC research on human social cultural behavior.
Public Archives of Survey/Census Data

Strengths

- Nice clean data ready for analyses
- Usually large data sets

Weaknesses

- Need to search for relevant metrics measures
- Data may not exist for the question
COLUMBIA UNIVERSITY LIBRARIES
DIGITAL SOCIAL SCIENCE CENTER

DSSC/Electronic Data Service
GIS & Statistical Data Resources

CU Data Catalogs

- CU Spatial Data Catalog
  Titles held by CU that are suitable for GIS applications

- CU Numeric Data Catalog (DataGate)
  Titles held by CU and by ICPSR that are suitable for statistical applications

Data by Topic

- GIS Data on the Web
- Population Data - U.S. Census
- Economics
- Finance
- Health
- International Data
- Opinion Polls
- Social Sciences
- Trade

Assistance in using these data resources is available by emailing eds@columbia.edu or on-site during DSSC reference hours.

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TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.
Historical Analysis of Public Records

Strengths
- Externally valid
- Real events

Weaknesses
- Need to search for relevant metrics measures
- Data may not exist for the question
### Databases

#### Find Databases

- **by subject:**
  - Social Sciences
- **by type:**
  - All Resource Types
- **by title or keyword(s):**
  - Keywords

#### List databases by title:

| List databases by title | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |

#### Find Articles

- **search across multiple databases using a Quick Search or Custom Search**

#### 19th century British Library newspapers

- Searchable full text of British newspapers from the 19th century.

  **Bookmark As:** [http://www.columbia.edu/cgi-bin/resolve?clio6344138](http://www.columbia.edu/cgi-bin/resolve?clio6344138)

#### 19th century U.S. newspapers

- Searchable database containing digital facsimile images of 19th century U.S. newspapers.

  **Bookmark As:** [http://www.columbia.edu/cgi-bin/resolve?clio6003232](http://www.columbia.edu/cgi-bin/resolve?clio6003232)

#### Abstracts in social gerontology

- More info...
Questionnaire/Interview Methods

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<td>• Relatively low cost</td>
<td>• Question construction may not be simple</td>
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<td>• Relative ease of conducting</td>
<td>• Answers subject to memory deterioration, bias</td>
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<td>• Differences between talking about a behavior and actually</td>
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TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.
EXPERIENCES WITH CROWDS QUESTIONNAIRE

You are being asked to join a research study that studies the varieties of crowd situations that Soldiers encounter in theater. Your joining the study must be voluntary and you can decide not to continue to be in the study if you wish without any bad feelings without any penalty or loss of benefits you may otherwise be entitled. If you agree to participate, you will be asked to fill out a survey on AKO. There will be about a few thousand people in the study. Your role in the study will take about 20 minutes. This study is being sponsored by the Joint Non-Lethal Weapons Directorate (JNLWD).

The risks that have been identified are those associated with the questions that are asked, such as difficult memories about your experiences. There is no cost to you to participate in this study. There is no direct benefit to you; however, we hope that this information will be helpful to answer how to help Soldiers in crowd management situations. The information collected will be kept confidential by keeping the information that is collected separate from your personal information. All of the research information will be kept in a locked file cabinet or in a password protected data file without any information that could identify you. This study has been reviewed by the ARDEC Institutional Review Board who reviews all research we perform.

If you have any questions about this study you can contact Gordon Cooke at gordon.cooke@us.army.mil or (973) 724-9518 (DSN 880-9518). In addition, if you have any questions about your rights as a research subject you may contact: Barbara J. Lodico, U.S. Army Research Protection Administrator for ARDEC at Barbara.Lodico@us.army.mil or by calling 973-724-2302.

After reading this consent letter, if you would like to take part in this study, please click on the "Start Survey" button below.

This is an UNCLASSIFIED questionnaire. Answer appropriately.

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TBRL
TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.
The Search for the Algorithm: Less Costly Data Sources

Analysis of Videorecordings

- **Strengths**
  - Relatively easy to buy data

- **Weaknesses**
  - Biased
  - Camera view limited
  - Coding
Real-time Observation/Interview

Strengths

• Great external validity
• Gain deeper insight into phenomena

Weaknesses

• Personnel intensive
• Researchers need to be highly trained
• Relevant event may be rare
The Search for the Algorithm: Richer Data Sources

Laboratory Experiments

**Strengths**
- Control over variables
- Reliable
- Data rich

**Weaknesses**
- Resource and Personnel Intensive
- External Validity need to be established
• No “Magic Bullet” experiment that answers all questions
• Need disciplined programmatic research
• Use more than method of research
• Have collaborations among researchers with different perspectives and approaches