Advances in Collaborative Research

Knowledge Transfer
Process sharing
Protocol development
Lexicon exploration and documentation

Team Merging
Activities
Workflow
Team charters

Team Diversity (backgrounds and expertise)
Government: Mavens, Reporters, Linguists, Analysts, Researchers, Computer Scientists
Academic: Communication Experts, Digital Media / Rhetoric Expert, Industrial Designer, Design Researcher, Engineer, Human Centered Designer
Research experience: Qualitative, Mixed-methods

Survey Development

Process
Content development
- Informed by secondary sources (lit and market reviews)
- Informed by experts
- Identification of stakeholders
- Access to intended participants
- Participant engagement, limitations, perception
- Mavens and ProRaD Symposium
- Method selection: distribution of high-side survey

Rigor in methods selection, protocol development, and tools selection
- Analytic rigor assessment
  - Connection to ODI/AIS (Analytic Integrity and Standards)
  - Informed by analogous reporting domains
  - Mavens: methods development and protocol reviews
- Structured analytic techniques (SATs) utilized:
  - Analysis of alternatives
  - Decomposition and visualization
  - Ideation - idea generation
  - Conflict management
  - Scenarios and indicators

Mapping from interview protocol to survey tool
- Selection of high-side survey tool
- Sequencing of content inquiry

Mapping from interview (cont.)
- Logic development for participants based on responsibilities and experiences
- Refinement to produce a short, focused set of questions (promote survey engagement and completion)
- Internal review
- Transfer to high-side

Production of low-side survey / interview equivalent

Intended Participants
Intelligence analysts
- IC
- Law enforcement
- SCADA (2017 expansion)
Law, Medicine, and Business Analysis

Human Subjects / IRB

CITI Training completed by group members
Application development
- Protocol
- Informed Consent
- Recruitment materials
Submission to NCSU IRB
Approval from NCSU IRB

Refinement of methods necessitating resubmission

Submission to HRPO, upon NCSU IRB approval

Literature and Market Review

Market Review: existing products/technologies
- Literature review: collaborative writing strategies (clockwise direction)
  1. Sequential Writing
  2. Group Single-Author Writing
  3. Transfer Writing: Stratified Division Writing
  4. Parallel Writing: Horizontal-Diagonal Writing

Audience-specific reporting
- Business intelligence

Products: IBM Cognos, SAS, QlikTech, Tableau, TIBCO Spotfire, Microstrategy
Tech: real-time bidding

Early team brainstorming (goals, activities, objectives, deliverables) mapped into activity diagram

Graphic notes capturing Tayloe’s dynamic presentation to ProRAD