Statipedia: a platform for collaboration across statistical agencies

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... with lots of advice from others.

This research does not represent the Bureau itself, only the named authors.
Vision: work together on methodology online

- Tools and workspaces for statistical staff across agencies
  - With source material for economists and statisticians
  - Available to new employees
  - Not for the general public

- Web tools
  - Wikis
  - Version control system for source code
  - Search engine
  - Blogs, statistical languages, and more
OMB directive (Dec 8, 2009)
“The Plan should include proposals to use technology platforms to improve collaboration among people within and outside your agency.”

At DOL:
- OpenDOL web site invitation: “Share your ideas”
- Visitors could click “agree” or “disagree”
- This proposal tied for 3rd out of 130+ proposals
After 9/11, the U.S. intelligence agencies reviewed their communication tools and processes.

- They added web tools and work spaces to their network
  - an interagency wiki: “Intellipedia”
  - blogs, tagging, search, instant messaging, videos

- This made it easier to find and use information across the 16 agencies.

- We met the Intellipedia founders; they presented at BLS.
Other government collaboration platforms

- EPA’s blogs and wikis
- DOD’s Techipedia and forge.mil
- OMB’s MAX
- OECD’s WikiProgress.org
- British and Canadian civil service common platforms
- Eurostat publications wiki

In future: DOL’s wikis, GSA’s apps.gov, OMB’s SCOP

These models support Open Gov concepts
Examples of wiki uses

- Repository for definitions
- Topical explanations:
  - Seasonal adjustment methods
  - Occupation and industry classification
    - Translation and harmonization of data series
    - “Green jobs,” “high tech jobs”
  - “Systemic risks”
    - How to measure and reduce such risks?
    - And fast discussion as at intelligence agencies
Search capability

If it’s easy to search all the sites, then

➔ Users find specialists by their contributions!
  ➢ Wiki pages, blogs, code
  ➢ knowledge is easier to discover

➔ Communities emerge
  ➢ User groups
  ➢ Collaborations
  ➢ Standards develop
Other tools for analysts

- Blogs for projects and persons
- Statistical computing languages
- Geographic information systems
- Videos for training
- Repository of documents
- **Source code control**
  - Stores source code of computer programs
  - Tracks relationships among files (E.g. these 10 go together to make one program)
  - Supports study and fixing of bugs
  - Eases working together over distances
  - Possible host: GSA’s apps.gov
Administrative principles

- Scale up
  - Per capita costs fall and benefits go up (as on Web)
  - Broad open audiences ➔ emergent communities

- Meet open technical standards
  - E.g. HTML, TEX, wiki-text links, hooks/extensions
  - So new components fit in easily
  - Enable extension by interested government staff

- Enable and encourage participation
Norms to encourage online

- Anchor discussions to sources, evidence, theory
  - This requires a technically rich work environment
    - Enable drilling down to sources
    - Support hyperlinks, equations, footnotes, source code

- Address broad/open audiences on topics
  - Welcome open cross-talk
  - Not organization-specific
    - E.g. “green jobs” both labor and environmental

Such practices encourage scientific community and reproducible results
Virtual Communities

- Likely examples:
  - Productivity (BLS, BEA, Fed, DOE, USDA, NIST, ...)
  - Seasonal adjustment (Census & X12 users)
  - Survey methods
  - Information technology

- These virtual communities can have:
  - common pools of source material
  - mutual awareness
  - potential for review of one another’s work
Savings over time from platform

Reduced costs for software:
- Development and maintenance
- Acquisition, approval/certification

How?
- Less duplication of effort across agencies
- Costs are amortized over more organizations
- Specialization benefits a larger audience
Long run effect --
better knowledge management

It will be easier to:

- find specialists and experts
- prepare for retirements and turnover
- integrate new staff
- reproduce and confirm scientific results
- reduce overwhelming flows of email
  (Less “dissemination”; more “discoverability”)


Moving forward: a pilot project

Proposal: actively try shared web tools and workspaces for scientific collaboration across agencies
- Joint with partner agencies
- Usable experimental platform
- Evaluate/report in 1 year on users and content
- Budget goal for agencies: zero

Purpose: evaluate benefits, costs, and pitfalls of a permanent Statipedia
Pilot project: outline

- An ideal pilot project:
  - develops a wiki of statistical & survey methods
  - covers topics of joint interest
  - meets the OMB OpenGov collaboration directive
  - offers new services to the staff

- Cross agency participation requires:
  - a host (EPA, OECD, DOL, SCOP, GSA)
  - users with authorization

- The project would not:
  - involve production processes
  - use sensitive information, e.g. sensitive PII
Benefits to the Statistical Community

By participating in a productive, high-morale pilot project, ICSP agencies:

- make it more likely that future joint systems serve their needs
  - prepare for new ways of sharing code, data, and methodology in a safe work environment
- unlock value from one another
  - work smarter, not harder
  - liberate methodology!