

New research system uses social media and other tools to gather, analyze expert opinions

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Researchers have developed a new method of eliciting and analyzing opinions from a large group of experts and laypeople to aid complex decision-making, adapting online and social media technologies to lower the cost of such activities while expanding the types of people who can be queried.

The system, called ExpertLens, incorporates elements of such well-known approaches as the Delphi method, the Nominal Group Technique and [crowdsourcing](#) that are used to collect opinions about problems or to create forecasts. The online system and the associated [methodology](#) have performed well during early tests, according to findings published online by researchers from the RAND Corporation in the journal *Technological Forecasting & Social Change*.

Developers say ExpertLens could have wide application across such areas as public policy, health care, finance and marketing, where expert panels are frequently used to help solve problems or predict an unknown future.

"Expert panels have long been used to pursue research across a broad area of policy," said Siddhartha Dalal, the study's lead author and chief technology officer at RAND, a nonprofit research organization. "This new system allows expert panels to be done online in a robust way that resembles fact-to-face meetings, but with lower costs and easier analysis of the information gathered."

Leaders who are examining complex policy issues frequently need to elicit opinions from large and diverse groups of stakeholders with broad and diverse sets of expertise.

Existing options for gathering such opinions generally include convening meetings of experts where opinions are expressed face to face (the Nominal Group Technique), organizing panels of experts who share their opinions without meeting in person (the Delphi method) and putting out an open call for input to a large community of people (the crowdsourcing method).

Each of the approaches has certain strengths and weaknesses, according to researchers. Face-to-face meetings can be expensive and difficult to organize. In addition, such efforts usually are limited to small groups of people with narrow areas of specialization and can become dominated by a small number of strong personalities.

The Delphi method, developed at RAND during the 1950s, collects the opinions of large groups of experts who participate anonymously. But such efforts are limited to the questions submitted of the expert panels and have no feature for interactive discussions among participants.

More recent approaches focus on channeling the "wisdom of the crowd" through large and diverse groups of people with different levels and areas of knowledge. Experts say that while crowdsourcing methods can reach large groups of people online, they also can be inefficient and unfocused unless there is clear direction and input is monitored.

ExpertLens leverages the advantages of both Delphi and the Nominal Group Technique methods. It also uses the modified principles of crowdsourcing to offer a means to elicit opinions from a broad and diverse pool of experts who are in different locations.

In general, in the first phase of an ExpertLens process participants answer a series of questions. In second phase, they review the group's responses and discuss their answers using online discussion boards. In the third phase, participants re-answer phase one questions based on the additional information they received during the feedback and discussion in the second phase.

The online nature of ExpertLens allows the results to be rapidly compiled and the findings to be analyzed quickly.

"ExpertLens is a major extension of the existing elicitation approaches that brings together the best [elements](#) of many different systems," said Dmitry Khodyakov, another ExpertLens developer and an associate behavioral/social scientist at RAND. "It is a new option to help solve problems when there are no obvious solutions. We will continue to experiment with the system to see where it works best and what features provide the best outcomes."

Thus far, the ExpertLens system has been employed to help study a number of issues. For example, it was used to analyze potential litigation stemming from a hypothetical terrorist bombing of a hotel, evaluate the federal response to the 2009 H1N1 flu pandemic and develop consensus about features that should define continuous quality improvement in health care.

Researchers say they are continuing to test and refine ExpertLens, planning further research to examine the impact of group size, the diversity of participants, the methods used for group discussions and methods to aggregate judgments.

Provided by RAND Corporation

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