Delphi like processes

The name of Delphi was not chosen by the inventors of the method at RAND (Olaf Helmer and Norman Dalkey) but by their fellow professionals, since it was commonly used for future predictions. The strange name affixed to the Delphi process has not been favorable for the spread of this method. What has happened as a result is that many of the premises of Delphi have been rediscovered or renamed under other methods to use group processes to try to obtain some level of collective intelligence. This is the concept that the group can reach a higher quality result than any individual in the group would have acting alone [1]. The most common Delphi derivatives today are: collaborative tagging or folksonomies and recommender systems, prediction markets, wikis and collaborative systems for humans.

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Collaborative tagging

The idea of using a consensus on creating index tags for various objects by anonymous agreement on words to represent the object has become quite popular and goes under the name of collaborative tagging or Folksonomies. The PhD thesis that created the field of collaborative tagging was "espgame.org" which is still on the web and a wonderful experience to appreciate fully a two-person Delphi structure. A design for a recommender system for professionals in online "communities of practice" incorporating a dynamic Delphi structure for obtaining group preferences and using collaborative tagging was published in $2009^{[2]}$. In many Delphis, it is desirable to break down the votes into subgroups by the characteristics of professionals or knowledgeable people involved. The design includes rating the documents of interest to the given community through collaboratively tagging by the community as to the special topics the documents represent. The users should also be self-tagged by same index so that it is easier to make participants aware of what is a significant information and evaluation vote of interest to them on a personal basis. This is a desirable feature for any online continuous Delphi/Recommender system. In recommender systems like the product review system used for Amazon the product of concern is the tag that links purchasers and those who might purchase a given product.

Prediction markets

Norm Dalkey emphasized the concept that Delphis could ultimately produce very concise results that because of quantification would not suffer from ambiguity and the other problems facing face-to-face verbal communications reference needed. He would have viewed the prediction market as an excellent example of a type of Delphi process. Certainly, the prediction market has roots in the concept of financial markets, but what people tend to forget is that those markets are only as good as the people who are making the investments. In addition, there is a tremendous amount of qualitative material used by people who recommend to others what to do in such markets. They are anything but concise in their output of material, nor are they always accurate, especially in forecasting negative financial events of any size. Delphi processes are no better than the group that participates. The movie financial success prediction market is quite good since most of the thousands who play that market are extremely knowledgeable about movies. Another example is that NETFLIX can identify very small groups of individuals who make very similar movie choices, and use that to make recommendations among the members of that small group. This is a complete Delphi process with anonymity within the larger NETFLIX recommender

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system. They might someday decide to allow social networks to form within that context for those willing to reveal their identity to each other.

Wikis and collaborative systems for humans

Wikis started out to be completely free for anyone to rewrite anyone else's material. Clearly, this did not work for any subject where disagreements existed reference needed. They have now evolved to have strong editing approval procedures like journal editors. They have evolved to be much more Delphi-like than their original conception. One of the most interesting examples is Wikimapia, which allows anyone to place information into a geographical database. There are number of examples where local governments allow citizens to place information directly into a database for the local community. Most local governments do not have the resources or funds to do this when the data has to be maintained. In this case, the citizens can update entries when needed. This is used to create GPS databases relevant to emergency management and provide information on sites vulnerable to certain disasters and the locations of equipment that might be shared among the community in emergencies such as a contractor's earth moving equipment or possible shelter locations.

The recent emergence of Social Networks that allow the users to form their own groups to share information of common interest to the group has lead to a large number of local community activities including sharing information relevant to an expected or ongoing emergency [3][4][5]. The idea of groups within online Web systems goes back to the earliest days of Group Decision Support Systems on the Web[6][7]. The unfortunate situation with respect to Social Networks is that most of these systems are designed to serve a commercial objective and the functionality does not really include what could be designed to facilitate collaborative goals for applications like emergency management information systems, as has been demonstrated in the professional literature of that field[8].

References

- 1. <u>?</u> Hiltz, S.R. and Turoff, M., The Network Nation: Human Communication via Computer, 1978 Addison Wesley, revised edition reprinted 1993 by MIT Press
- 2. <u>?</u> Turoff, M., Hiltz, S.R.: The Future of Professional Communities of Practice. In: Weinhardt, C., Luckner, S., Stößer, J. (eds.) WeB 2008. LNBIP, vol. 22, pp. 144-158. Springer-Verlag, Berlin Heidelberg (2009)
- 3. ? Palen, L. Hiltz, S.R., and Liu, S. (2007) Citizen Participation in Emergency Preparedness and Response, Communications of the ACM special issue, 50, 3, 54-58
- 4. <u>?</u> Vieweg, S, Palen, L., Liuk, S., Hughes, A., and Sutton, J., Collective Intelligence in Disaster: Examination of the Phenomenon in the Aftermath of the 2007 Virginia Tech Shooting, ISCRAM, Washington, D.C. 2008.
- Yhite, C., Plotnick, L., Adams-Moring, R., Turoff, M., and Hiltz, S.R. Leveraging A Wiki to Enhance Collaboration in the Emergency Domain, 41st Hawaii International Conference on System Sciences, (HICSS) 2008
- 6. ? Hiltz, S.R. and Turoff, M., The Network Nation: Human Communication via Computer, 1978 Addison Wesley, revised edition reprinted 1993 by MIT Press
- 7. 2 Wang, Y., Li, Z., Turoff, M. and Hiltz, S.R. (2003), Using a social decision support system toolkit to evaluate achieved course objectives, Proceedings of the Americas Conference on Information Systems, Tampa, August. (Nominated as a ?best paper.?)
- 8. <u>?</u> Turoff, M., Hiltz, S. R., Li, Z., Wang, Y., Cho, H. "The Delphi Process as a Collaborative Learning Method." In (edited by J. C. Moore) Elements of Quality Online Education: Into the Mainstream: Wisdom from the Sloan Consortium, 121-134. Needham, MA: Sloan-C, September 2004

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Delphi survey

See also 3