Water information distribution across organizational networks

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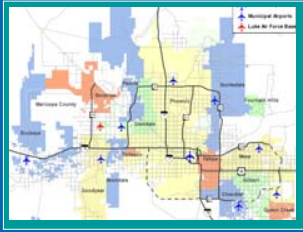
Do relationships between organizations influence the type of information provided to the public?

Hypothesis: Organizations that interact with each other often are more likely to provide similar information about an issue. (Theory of Homophily)

Prediction: Organizations with broader networks will provide information on a wider range of topics

Prediction: Organizations linked to one another will provide similar water information to the public



Organizations included in the study provide water information to at least part of the Phoenix metropolitan area (pictured at left)

Coded topics

Plant life	Animal adaptations
Water usage	Billing
Water quality	Watersheds
Groundwater	Political management
Drought	History
Water supply	

Identify Topics Using Text Analysis

Sixteen water education providers supplied print materials

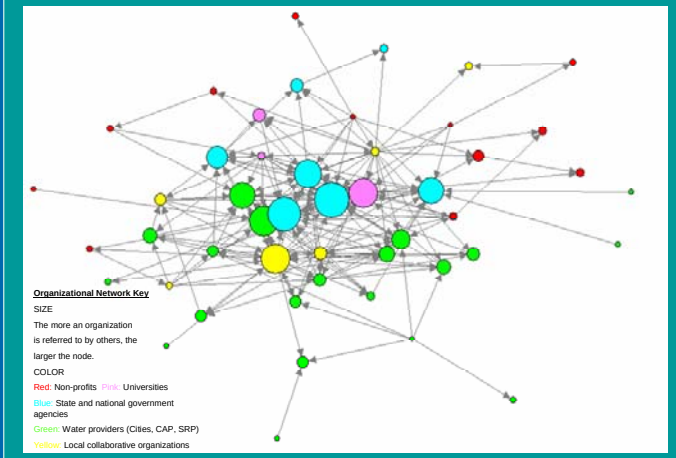
Thirteen topic codes emerged and could be consistently coded across researchers

Use Website Links to Perform Network Analysis

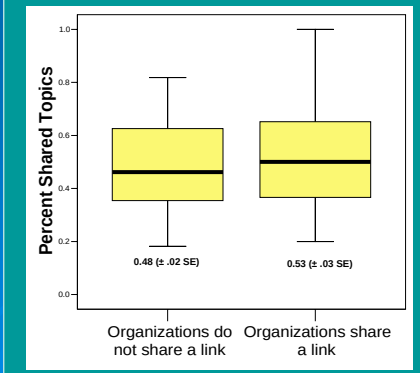
Links between websites used as proxy for communication.

Assumption: Websites link to other organizations they view as valuable information sources.

Data presented here is limited to organizations previously identified as participants in the greater Phoenix, AZ water education community.



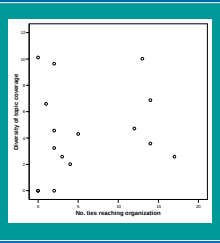
Large government agencies and large water providers are most likely to be used as information sources across the water education internet link network. Organizations draw on one of the state's three universities much more heavily than the others.



Similarity of information is *independent* of organizational ties

Mean Similarity = [Shared Topics / Total Topics of Both Orgs.]

P Value: 0.228



Broadly networked organizations *do not* provide more diverse information

Limitations of analysis

Small sample of organizations used for text coding.

Internet links used as proxy for communication between organizations. Future research will survey water educators about their communication across organizations.

Reciprocated ties may be more important indicators of strong, trusting relationships than one way ties. Internet ties were rarely reciprocal (13% of all ties) and so no separate analysis was performed.

Future work

Analyze other coding from texts in a network context (e.g. motivational frameworks)

Conduct social network surveys

Conduct public awareness and preference surveys to determine message effectiveness across audiences

How do organizational ties promote or constrain use of different motivational frameworks?

How do network interactions promote or inhibit effective messaging to the public?

Is the information that reaches the public meeting their needs?

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