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Introduction

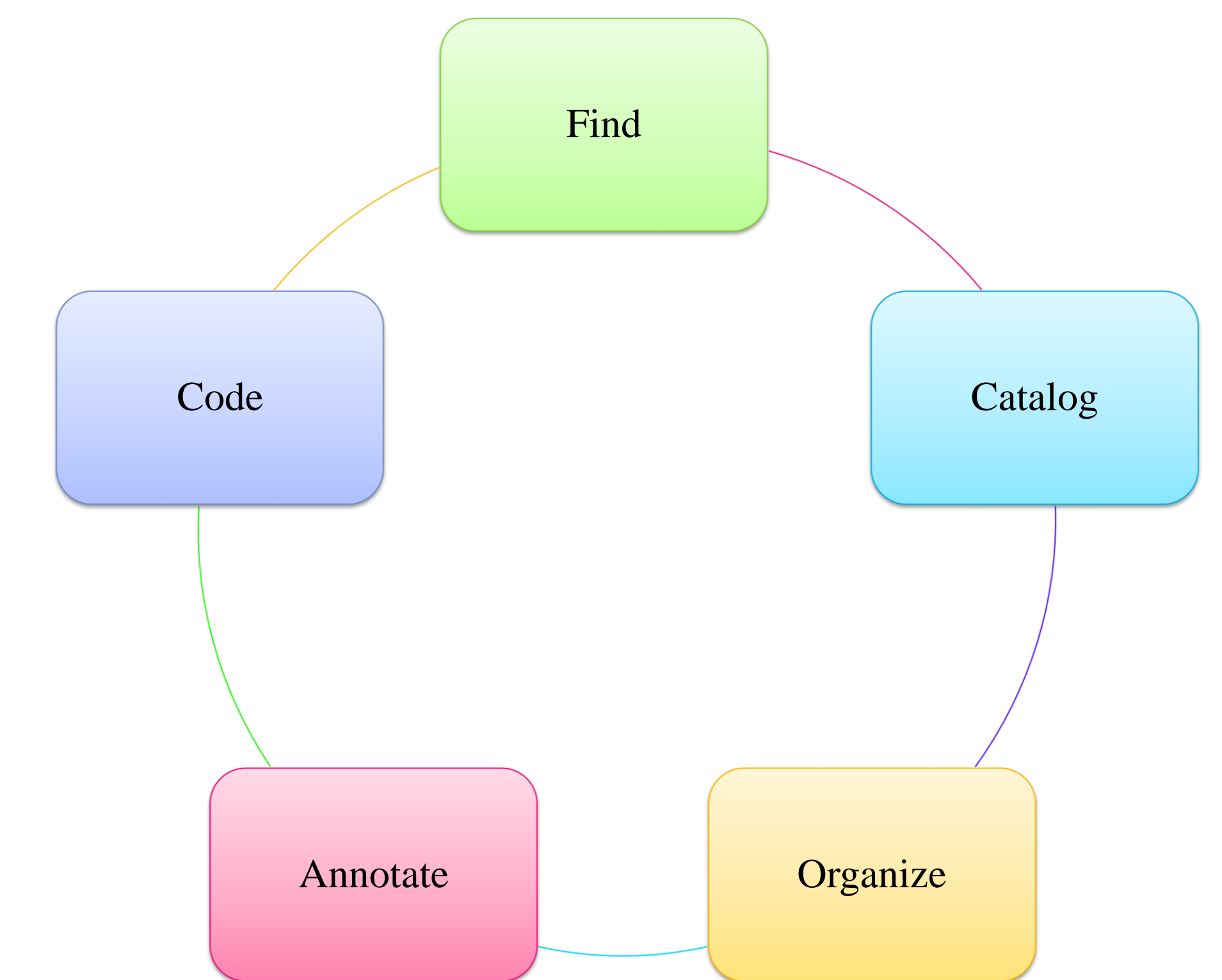
Since the National Nanotechnology Initiative was enacted in 2001, the innovation of nanotechnology has become a fascination and concern for many around the globe. According to a 2010 Yale Research survey, 53% of people claim to have no knowledge of nanotechnology and 28% claim to have very little knowledge. Who then, is shaping the discussion surrounding nanotechnology and the public? Social movement organizations have a strong history of influential roles concerning the environment and workers movements. Some have now turned their attention to nanotechnology and this project examines how Social Movement Organizations understand, communicate and mobilize around nanotechnology issues.

Research Questions

- How do SMOs communicate, understand and mobilize around nanotechnology issues?
- What are the issues that SMOs are concerned with?
- Who do SMOs appeal to in order to affect change?
- What actions do they take to attain their goal?

Methods

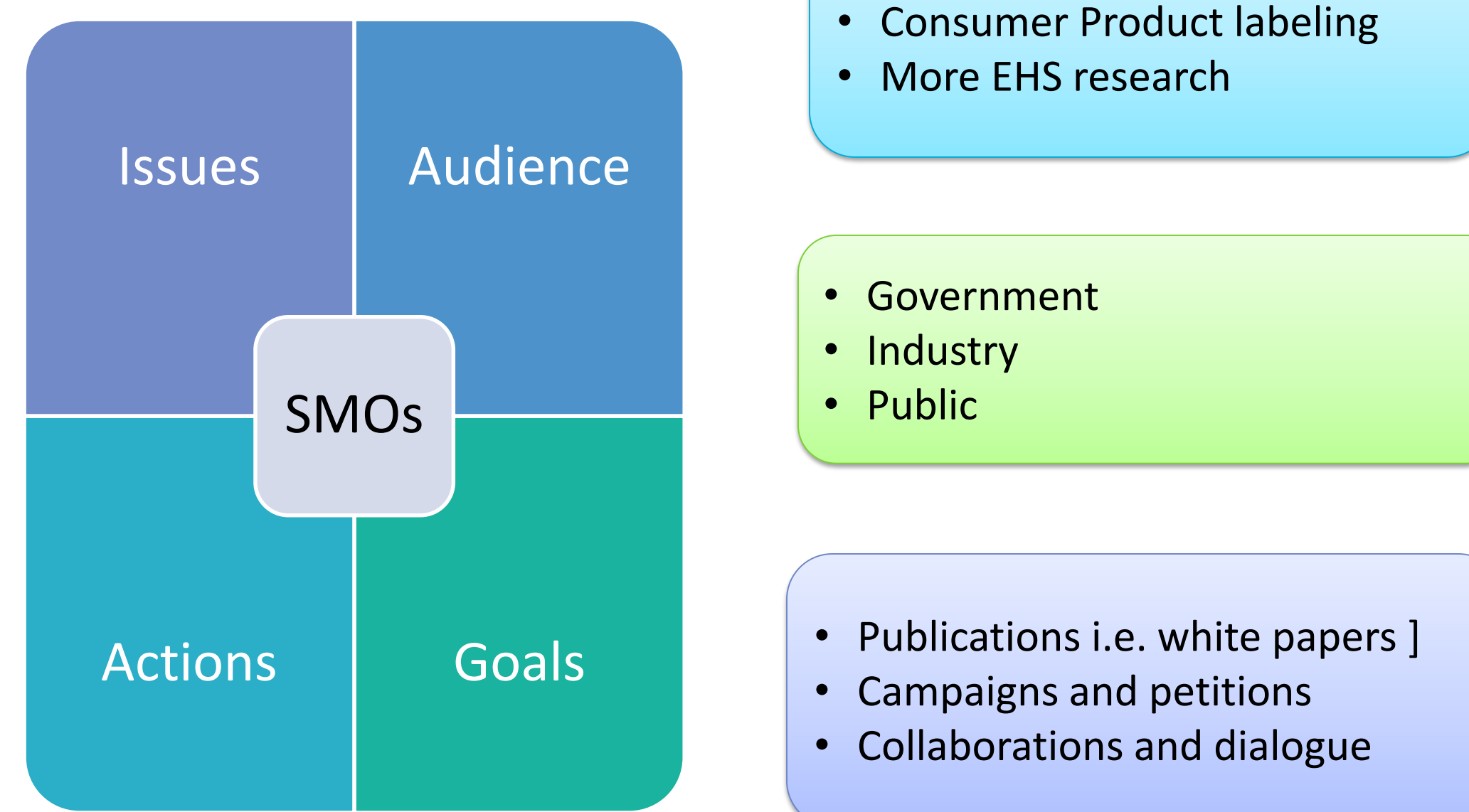
In order to observe how SMOs mobilize around nanotechnology-related issues a database was compiled, consisting of 186 organizations that articulated interest in nanotechnology.



These groups were then divided into "nano-engaged" and "allies" according to the level of involvement demonstrated by each SMO. Focusing on the 88 identified "nano-engaged" organizations this research compiles the written statements, publications and press releases for each organization. These documents will be coded for issue domain (e.g. potential risks of nanotechnology for environment, consumer and worker safety or potential promises of nanotechnology for innovation) and audience (e.g. government agencies, policymakers, scientists, companies, or publics).

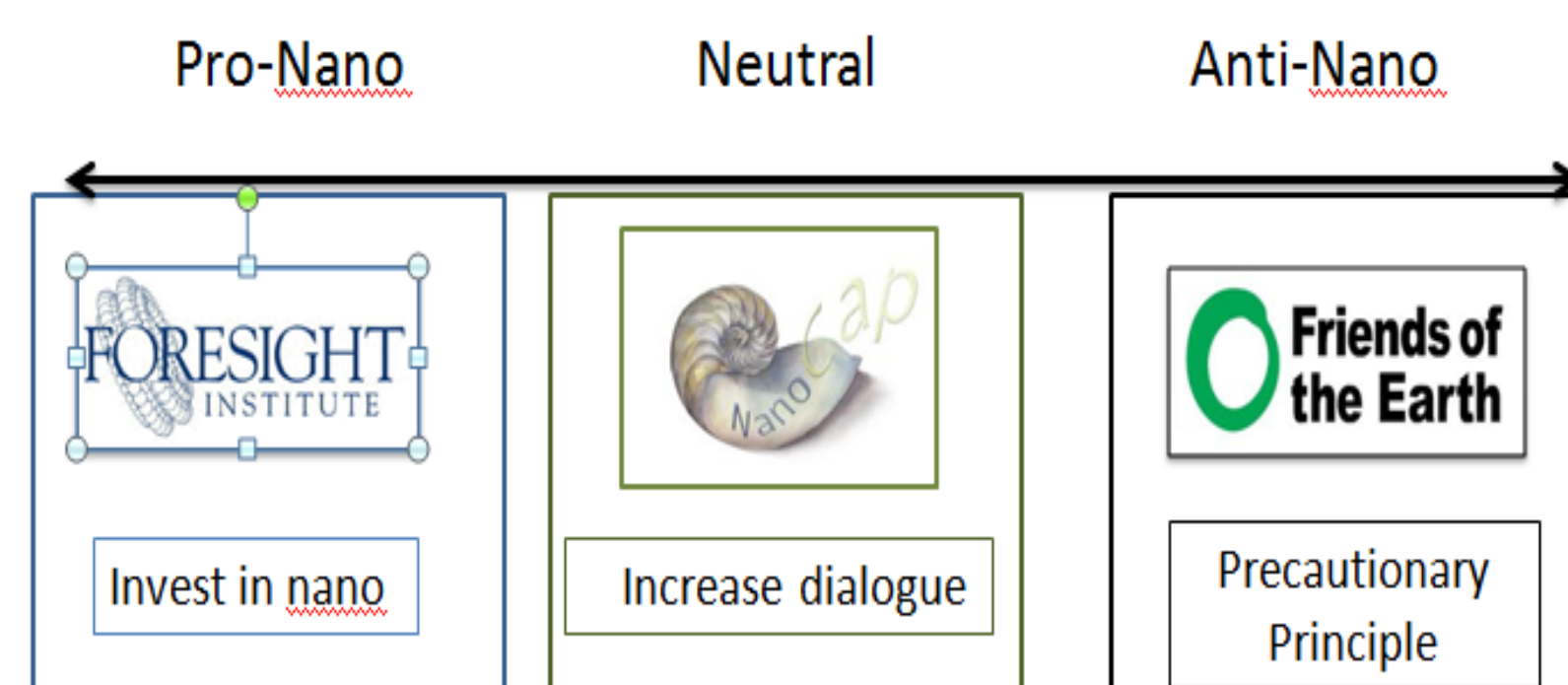
What is an SMO?

A Social Movement Organization (SMO) is an organization seeking to effect societal change or maintain a current state within society. They are a self identified representative of the public that seeks to contribute to dialogue surrounding Nanotechnology and its development.



Data

As the database serves to provide us with both qualitative (characteristic) data and quantitative (numerical) data, a case study of qualitative data was put together from the information collected in the database. A comparison was made between three social movement organizations who's interest spans from advancing beneficial nanotechnology to achieving moratorium (delay or suspension) of the use of nanotechnology.



Each organization was selected as they showed a significant amount of interest within nanotechnology and each had their own unique history:

Friends of Earth is a nonprofit based out of Australia and has worked tirelessly to achieve the ban of nano particles within sunscreen through appealing to the Australian Parliament. This has resulted in:

- A mobilization against sunscreens in primary and secondary schools
- 13% of Australian people have agreed to not use sunscreen.

Nanocap was a capacity building project that ran from 2006 to 2009. It consisted of:

- 5 trades unions, 5 universities and 5 non-governmental
- A series of conferences and seminars
- Renewed energy in the dialogue at the national level regarding nanotechnology.

The stipulation was that upon the completion of the project, each attendee was to release a statement regarding their position of nanotechnology. It did not have to be a uniform position, merely an educated one.

The Foresight Institute was founded in 1986 by the Godfather of Nanotechnology himself, Eric Drexler. The Foresight Institute is able to provide:

- Incentives to those seeking to further nano
- Funding of projects
- Prizes to those who've made significant contributions
- The Technology Roadmap

The Foresight Institute seeks to influence research agendas on a global scale and facilitate the development of responsible nano.

Organization	Goal	Target	Action	Results
Friends of the Earth	Moratorium/Product labeling	Australian Parliament	Press Releases, Campaigns and demonstrations	Movement against sunscreens
Nanocap	Critically understand and assess Nano	NGOS, Trades Unions and Universities	Conferences, seminars	Nanovirtualium Higher participation within dialogue
Foresight Institute	Advance beneficial Nano	Science Community	Publications, Projects and funding	Roadmap

Conclusions

Although each organization had a different approach, the SMOs were able to achieve some degree of success with their goal. SMOs are uniquely positioned to dedicate time and resources to nanotechnology-related issues and therefore can directly affect public perceptions by conveying their understandings of nanotechnology and its potential implications for society and the environment. This research shows that despite having different perceptions of nanotechnology, each SMO generated broader public discussions about nanotechnology innovation, safety, and governance.

Future Research

- Continue compilation of the database
- Code collected SMO documents for:
 - Issue domain (e.g. potential risks of nanotechnology for environment, consumer and worker safety or potential promises of nanotechnology for innovation)
 - Audience (e.g. government agencies, policymakers, scientists, companies, or publics)
- Develop a more systematic understanding of how SMOs understand and communicate nanotechnology-related issues.

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