

Effective Organizational Change: Measurement of Organizations to evaluate Interventions

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Abstract. Organizational restructuring and merger efforts often fail to meet their goals, despite the best efforts of current due diligence. Some number of these failures may, I believe, be attributed to the current methods used to understand the human and behavioral factors involved. In this thesis, I am developing a supplementary analysis technique to surveys that makes organizational modeling and simulation accessible and useful for routine organizational due diligence by leveraging the data of the organization at work. I use this data to both establish a current empirical baseline understanding of the organization and to instantiate a novel, and I believe necessary, multi-level agent-based simulation to understand how the organization may change in the future, both in response to specific interventions of interest, and without intervention. In developing this analysis technique, I am creating multiple method contributions, including a content-analysis algorithm and a multi-level simulation framework.

Keywords: Organizational Analysis, Multi-Level Modeling

1 Organizational Change is common, and yet fails often

Deliberate organizational change, where an organization makes an effort to change processes, structures, tasks, or markets, is common-place. One industry study found that almost 90% of these respondents have experienced a deliberate re-organizational effort recently [1]. Thousands of mergers occur every year, with total valuations in the billions. Yet, these efforts often fail to meet their goals. An industry survey of European executives found that only 9% of experienced mergers met, in the eyes of the respondents, their original goals [2]. The prior study of deliberate re-organizing also indicated that respondents believe fewer than half of the experienced reorganizations were successful at meeting their stated goals [1]. Much of these failures are attributed to cultural factors. Cultural factors have been widely emphasized in cross-cultural merger and acquisition [3]), but the point is becoming more emphasized even in domestic mergers [4]. Restructuring (especially downsizing) also has significant known behavioral factors [5]. Surveys in an organizational context are fraught with difficulties. There is rarely a systematic sampling or complete coverage method used to select interview respondents; participants tend to be drawn from the highest ranks. The demand characteristics [6] of the setting tend to overwhelm candor, and inter-

viewees are likely to speak to protect their current position, what [7] labels *personal valence*. These problems can be overcome, but require skill, time, and great expense.

My goal in this work is to help organizations, by leveraging data already generated as a by-product of the organization at work, to understand both their current state and possible future impacts of considered structural and process change. Primary, secondary, and tertiary impacts of prospective interventions (e.g., restructuring efforts and acquisitions) will be explored using a network-centric multi-level model of social cognition using data of the organization at work.

2 Leveraging the Data of the “Organization at Work”

However, organizations generate useful data for analysis and yet leave the generated data unexamined – the leverage offered left completely un-utilized. These data come in multiple forms, from collaboration tool logs, business process activity data, and routine email correspondence. These data are almost always inherently longitudinal, and thus the data are unlikely to have response bias.

In this thesis, I leverage such data to examine the state of the organizations at multiple points in time. I have email data from over a 2-year span in the active course of horizontal merger. I use this data to inform multi-level simulations and analyses of the organizations. I also develop a novel key term identification technique, applicable for use both in disambiguating groups based on language and identifying low-value words in a corpus.

In the course of this work, I will attempt to answer these overarching research questions: 1) Can I use the content and structural analyses to offer more clarity into organizational dynamics than surveys can provide? 2) Can we develop a rapid, systematic method for converting multiple forms of already extant organizational data into data to inform multi-level simulation? And 3) Does a dynamic multi-level model of organizational processes offer different and more accurate results to a similar model that does not have this dynamism?

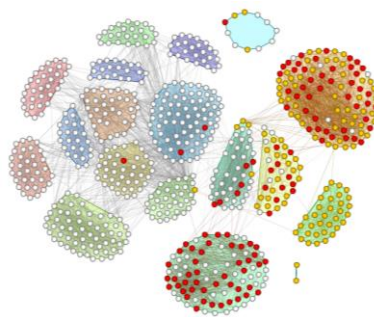


Fig. 1. Structural Clusters in a large multi-national, nodes colored by legacy, with White being the purchasing company, Red (the darkest nodes) the purchased company, and Orange (the middle shade) employees brought in after the Merger.

3 Conclusion

In summary, organizational restructuring and merger efforts often fail to meet their goals, despite the best efforts of current due diligence. Some number of these failures may, I believe, be attributed to the current methods used to understand the human and behavioral factors involved. In this thesis, I am developing a supplementary analysis technique that makes organizational modeling and simulation accessible and useful for routine organizational due diligence by leveraging the data of the organization at work. I use this data to both establish a current empirical baseline understanding of the organization and to instantiate a novel, and I believe necessary, multi-level agent-based simulation to understand how the organization may change in the future, both in response to specific interventions of interest, and without intervention.

In developing this analysis technique, I am offering multiple method contributions, including a text cleaning thesaurus for business processes, a large-scale network rendering tool, and the overall framework for leveraging this data.

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