Developing Collective Identity in a Cross Sector Partnership

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Discipline
- Humanities
- Social Sciences
- Natural Sciences
- Applied Sciences

Sector
- Government
- Industry
- Academic
- Nonprofit

Geographic Boundary
- Regional
- National
RQ: Does our intervention promote alignment between official texts and enactment?
LAS Work Life Cycle

This diagram shows the primary work stages of an LAS member. Each stage of the life cycle includes tools and resources that explicate LAS culture, goals, and protocols for collaboration and completion of deliverables.

- Recruiting
  - Internal materials
  - External materials

- Pre-Hire
  - Who we are & What we do

- Hiring & Onboarding
  - Logistical needs
  - LAS lexicon
  - Starting Projects
  - Fitting in

- Work Groups (Group Needs)
  - Coordinating formation
  - Supporting team functioning

- Task Support (Individual Needs)
  - Tools
  - Moving Deliverables
  - Business policies

- Deliverables
  - WRM presentations
  - Symposium
  - Reports
  - Other

- Separation
  - Knowledge transfer
  - Reflection

Personal Development
- Resources
“Our work covers the spectrum from basic science to applied solutions....[through] an immersive collaboration model that brings together researchers and mission analysts with multidisciplinary teams from social sciences, humanities, design, math, engineering, computer science, and others.”
“LAS members are asked to collaborate to develop our deliverables...but I don’t think it is possible to engage in immersive collaboration as it is envisioned...”
Aligning Organizational Text & Enacted Experience

- Offer mutual benefit
- Share mutual interest
- Demonstrate mutual respect
- Accept mutual risk
- Enact mutual accountability
- Engage in mutual dependency
- Give mutual recognition
Promoting Collective Identity: Takeaways

Using living, visual diagram (such as map)

Collective insight to congruence differences

Enables collaborative development of new org materials & processes

Ultimately strengthening collective identity
Developing Collective Identity in a Cross Sector Partnership

by

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Abstract

Cross Sector Partnerships (XSP) have emerged to address complex, multi-dimensional problems. Using an action research methodology, we examined the conversations and texts and whether they revealed emergence of an authoritative text. We started the process by developing a diagram of an organization’s work life cycle and materials needed to support organizational functioning. We then conducted 13 interviews with organizational members, showing the diagram and adjusting it according to interviewee responses. The process revealed conflicts in perceptions of organizational structure and afforded a reflexive space for unifying participants around a common understanding of organizational needs. Results show the importance of managing the tension between individual agency and collective identity through facilitating participation of diverse member voices.

Keywords: cross sector partnerships, collaboration, individual agency, collective identity
Developing Collective Identity in a Cross Sector Partnership

We...help intelligence analysts better perform complex, integrated analysis....by bringing together researchers, technologists, and practitioners from government, industry, and academia to deliver tools, techniques, technologies, and tradecraft that...create demonstrable results against real-world mission challenges. Our work covers the spectrum from basic science to applied solutions....[through] an immersive collaboration model that brings together researchers and mission analysts with multidisciplinary teams from social sciences, humanities, design, math, engineering, computer science, and others...(Excerpt from the XSP studied here, anonymous for blind review)

The above excerpt exemplifies a trend in organizational structure and problem solving, that of crossing members from multiple sectors, disciplines, and geographic boundaries to create a hybrid organization that can solve complex problems, such as those related to health, environment, policy, and national security. Several terms have been used to describe this organizational structure, and we adopt cross sector partnerships (XSP) based on the work of Koschmann, Kuhn, and Pfarrer (2012). These organizations cross ontological, epistemological, and cultural boundaries that come with collaborations among members of different organizational, disciplinary, and geographic interests.

Inter-organizational research shows how collaboration among members from different sectors results in unique decisions that benefit problem solving (Doberstein, 2015), while at the same time a lack of history makes it challenging for members build relationships, set goals, and make decisions (Keyton, Ford, & Smith, 2008). Research on multi-disciplinary collaborations shows that member efforts benefit problem solving processes because interactions can shift
participants’ paradigms (Börner et al., 2010), while at the same time disciplinary misunderstandings can bring collaboration to a halt (Sonnenwald, 2003; Stokols, Hall, Taylor, & Moser, 2008). Research on collaborations crossing national, regional, and local boundaries shows differing legal frameworks, politics, and perceptions of capacity can create rifts in collaborators’ problem frames and solutions (Perz et al., 2010). Yet, this same research has also shown how transboundary collaborations engaging in diplomatic relations across geographical boundaries can lead to mutual learning and collaborative knowledge generation.

This paper is an initial exploration into the dynamics of a XSP as well as the tools and methods that support collaborative efforts. We used Koschmann’s concepts of collective identity (2012) and collective agency (Koschmann, Kuhn, and Pfarrar, 2012) to explore the reciprocal influence of individual member goals and agency with that of organizational goals and structure.

We situate our study within an XSP we call “The Lab” and used action research methodology (Eden & Huxham, 1996) to fluidly switch between theoretical and applied work. The Lab affords a unique research experience as its focus is solving complex technological problems related to U.S. national security and it is constituted by members representing diverse organizational, disciplinary, and geographic positions from government, industry, and academia. Over the course of a year, we used action research to allow theory to inform our collaborative development of organizational tools with lab members and vice versa. This manuscript details our theoretical grounding, a narrative of our application of theory to practice, and the tools that emerged that may serve to support XSP functioning and development of collective identity.

**Literature Review**

XSPs are unique from other types of organizations because they aim to address problems so broad in scope and complexity that no one organization can solve the problem on its own.
Members of XSPs come from at least three or more areas crossing disciplines, sectors, and geographies (Figure 1). For example, an XSP might consist of members from the social, natural, and applied sciences, representing government, industry, and academic sectors at a local, national, and international scale. These members work towards a common mission or goal by pooling resources, including, but not limited to, knowledge, skills, connections, and funding.

*Figure 1.* The composition of x-organizations or x=collaborations (XSPs).

Participation requires meeting regularly, in-person and/or digitally, to maintain the type of collaboration required to produce the envisioned outputs. The XSP may occupy a physical location where members meet and work or it may occupy a virtual space, requiring members to collaborate via online resources and conference calling.
Members accomplish work within an XSP by crossing their knowledge, skills, and efforts in three ways; arrangements we call x-collaborating (Choi & Pak, 2006). The first type of x-collaborating is when members work *individually* to produce outcomes based on their background, which are then brought together to solve the problem (akin to multi-disciplinarity). The second type of x-collaborating occurs when members *combine* their knowledge and develop new techniques to solve the problems (akin to interdisciplinarity). The third type of x-collaborating requires members to *immerse* themselves in the methods and tools of other members so as to acquire insights that are only possible through the immersion process (akin to transdisciplinarity). The outcomes of these arrangements may result in new configurations of knowledge, interactions among people and things, and physical or virtual products.

The purpose of crossing individuals with multidisciplinary and multisectorial backgrounds is to extend and expand creativity beyond any individual’s organization or training. Upon review of multidisciplinary and multisectorial research, it is evident why XSPs might offer improved problem solving capabilities beyond other forms of collaboration. When members discuss and debate methods, approaches, and outcomes to problems, they reduce groupthink and increase probability of radical thinking, gaining new insights, and forging paradigm changing solutions (Börner et al., 2010; Janis, 1982; Koschmann, 2012). Yet, the very characteristics that lead to creativity can hinder the functioning of XSPs. When group members do not know each other well, and their perspectives and interests diverge, it is difficult for them to trust one another (Keyton, Ford, & Smith, 2008; Koschmann, 2012; Sonnenwald, 2003). Additionally, a lack of organizational structure, procedures, mentors, and organizational memory impinges members’ abilities to trust one another, set goals, share information, agree to member roles and group outcomes (Keyton et al., 2008; Myers & Oetzel, 2003). Finally, the topics and structure lead to
collaborations that are in constant flux; members come and go and ideas and procedures are continually defined and redefined (Koschmann, 2012).

Scholars have offered many solutions to overcome these challenges, such as development of shared vernacular (Keyton et al., 2008), multi-mentor apprenticeship model (Nash, 2008), onboarding the right mix of personalities (Koschmann, 2013; Stokols, Hall, Taylor, Moser, 2008), building shared knowledge systems, facilitating cross team interactions and development of member skill inventories (Porter, Roessner, Cohen, Perreault, 2006). These solutions have one thing in common, through writing and speaking they assist members in developing a collective identity.

Koschmann (2012) explains how collective identity emerges when daily communication practices coalesce and become abstracted into a collective trajectory. The abstraction is then recognizable in authoritative elements and texts that serve to define the identity and function of an organization and the roles and responsibilities of members. Collective identity is never stable, rather through communication and practice members’ collective identity is continually produced, shaped, and defined. Specifically, member interactions lead to conversations where members develop shared language and understandings that are recorded in official documents and reified on presentation slides. In turn, the symbolic representations of collective identity, on documents and web sites, for example, leads to new member interactions and conversations. Thus, collective identity emerges from a cyclical process of discussion and documentation that leads to collective understandings of organizational identity and how that identity should be enacted.

Without a collective identity organization members flounder, unsure of their roles or the direction of the organization. Yet, developing authoritative texts and elements that coalesce members’ visions does not necessarily occur spontaneously or quickly. Koschmann (2012)
describes how an organization nearly fell apart due to a lack of authoritative texts; texts that eventually emerged after nearly a year of internal struggle.

In order to better articulate the mechanisms and dynamics of XSPs, we examined an XSP using the theoretical frameworks of collective identity (Koschmann, 2012) and collective agency (Koschmann et al, 2012). To understand collective identity, we examined existing physical texts, such as powerpoints and reports, and conversations or social interactions, such as staff meetings and public events (Cooren et al., 2008; Koschmann & McDonald, 2015). Koschmann et al (2012) also describe the emergence of an authoritative text, which is constructed when ongoing interaction creates a “higher order system” (p. 336). In other words, ongoing conversations and practices within the organization result in emergence of norms that transcend space and time and become the dominant mode of interacting. These authoritative texts may be understood to reflect the culture of the organization, although there remains an ongoing dialectic between the text and the day-to-day conversations. For our purposes, it seemed fruitful to examine various texts at The Lab and compare them with what we heard in our conversations with Lab members to understand the development of collective identity.

Our research diverged slightly from past research (i.e. Koschmann & McDonald, 2015; Koschmann, 2012) that observed and recorded the natural unfolding of collective identity. In our case, we observed what naturally unfolded and used an action research model to interject new tools to see how the tools alter the XSP’s collective identity. This is similar to the process used by Barbour and James (2015), when they were invited to worked with a XSP consisting of engineers, scientists, regulators, and technical writers in a Toxic Waste Facility. Barbour and James discovered four identity tensions at the facility, although these identity constructions were not divided among participants according to discipline or profession as one might expect. Rather,
they represented four discrete ways of defining member roles and work, which created ongoing tensions for members. Barbour and James (2015) concluded that organization members need to be willing to address these tensions or conflicts when they arise, even of they appear trivial, and that creating spaces for reflexivity among organizational members was valuable for transcending tensions to create collective identity.

Like Barbour and James (2015), we had been invited to help The Lab by facilitating meetings and developing interventions to help Lab members more quickly and efficiently identify mutual goals, coordinate work, and induce action. To accomplish our efforts of both identifying and intervening in The Lab’s functioning, we used action research methodology (Eden & Huxham, 2006). Action research methodology encourages the researcher to translate known theories and identify emergent theories to develop interventions that alter organizational functioning (Huxham & Vangen, 2005). An important aspect of action research is starting with relatively open or “fuzzy” research questions that are developed and elaborated through the research process, thereby allowing for the emergence of insights beyond existing theory (Eden & Huxham, 2006, p. 13).

Therefore, we started our research with a relatively broad set of questions:

RQ 1: What are the organization’s current structures (i.e. practices, tools, and materials)?
RQ 2: When members are given agency to influence or remove current structures, as well as collaboratively develop new structures in support of collective identity, what structures emerge and which recede?
RQ 3: What are the effects of these structures on member agency and collective identity?

Methods

Research Site
The study is taking place from January 1, 2017 to December 31, 2017 at the The Lab, located on a University campus in a midsized city in the Southeastern United States. The Lab supports the work of 52 government staff, 13 University employees, 10 industry partners, 1 non-profit organization, 40 academic faculty, and 70 students. Members represent a range of geographical interests, including local universities, national industries, and international agencies. The Lab was founded in 2013 and systematic study of collaboration processes at The Lab began in 2014 (the second author of this paper has been involved in this effort).

Members of The Lab engage in collaboration to identify the best practices and technologies, across organizations and disciplines, that enable government analysts to make sense of and share large volumes of often disparate data. Each year, approximately 10 to 12 domain specific teams emerge as way to bridge diverse members’ research interests and the needs of the government entity sponsoring (funding) The Lab.

The Lab structure consists of several groupings: The government sector consists of the lab director and government agency staff. These members contribute knowledge, experience, and social networks to ensure Lab projects connect to relevant problems in their agency. The University staff includes The Lab’s Principal Investigator, administrative staff who support organization functioning, and programmatic staff that develop partnerships and engage in projects to support collaboration and integration across partners. The academic and industry performers consists of research faculty from 10 universities, employees of small and large businesses, and one non-profit partner. The performers receive funds through a yearly contract and awards process that is managed by the Principal Investigator in collaboration with The Lab Director and staff. Academic performers come from diverse disciplinary backgrounds, with
approximately 56% from science, technology, engineering, and math and 44% from humanities, behavioral, and social science.

**Our Role**

Both authors have a history with The Lab that informed and prompted our research study. The first author is a staff member with a doctoral degree and the second author has been a member of a research team studying collaboration at The Lab since 2014. This study emerged as the bridge between our experiences as researchers and participants. At the time we decided to conduct this study The Lab’s leadership had started branding efforts as way to unify members, a move that revealed the timeliness of our inquiries into The Lab’s collective identity. The second author was part of the branding team.

**Data Collection**

To account for the variables within the theoretical frameworks of collective identity and structuration theory, we extended our data set beyond that required for action research. Action research involves triangulation of observations, accounts from participants, and the changes between the two over time (Eden & Huxham, 2006). We added organizational texts and documents, such as powerpoints and website content, so as to capture member agency in relation to collective identity and organizational functioning (Cooren, 2004; Koschmann & McDonald, 2015). We also noted the agency of other objects, such as location of offices and set-up of events, as way to understand how these artifacts might serve to support or hinder the collective identity of the organization. By examining a breadth of linguistic and non-linguistic elements we could begin to understand how these elements interact and, thus, make “present” the organization to its members and outsiders (Cooren, Brummans, & Charrieras, 2008).
We did not use theoretical saturation as a limiting factor because our continual engagement with the organization’s members and materials, per action research methodology, meant constant shifts in themes within our data. Therefore, we used time as the limiting factor, specifically the one year duration of the contracting cycle at The Lab. Additionally, each of the listed data sets provided a measure of triangulation, in the sense that we could compare each set to the other. We also utilized member validation tests (Lindlof & Taylor, 2010), such as giving a preliminary presentation of our findings and emailing our report to key members of The Lab; thus, ensuring our findings represented the organization in a clear and meaningful way. Our final data set included:

- **observations** of organizational events, activity, and non-linguistic elements;
  Specifically, we attended regularly scheduled staff meetings, appeared at The Lab’s public events, and observed The Lab’s branding efforts, as well as conducted observations of non-linguistic elements, such as the physical location of lab staff and the setup of events.

- **conversations** with current and prospective lab members and partners;
  Specifically, members of The Lab’s government team including strategy and engagement coordinators, mission director, deputy director, and research staff; members of The Lab’s University team including the principal investigator, director of programs, research staff, several industry partners, and prospective lab members and partners attending Lab events.

- **textual elements** presented by the organization;
  Specifically, the external and internal websites, hiring and onboarding materials, calls for white papers, government contracts, technical proposals,
internal collaboration reports, informative presentation slide decks, emails, and marketing materials.

- **comparisons** made by the authors of changes among these data sets over time; and
- **interventions** altering organizational processes created by the authors in collaboration with lab members based on the above data sets.

Specifically, we developed narratives describing internal processes, including hiring, work culture and practices, work tools, and organizational charts.

**Data Analysis**

Following action research methodology, we engaged in data analysis while also collecting data and facilitating the creation of interventions. We would take notes of each interaction we had with organizational members, whether in a meeting or at an event, and identify key themes from that interaction. We defined key themes as those that members explicitly stated as important to organizational functioning, as well as those we identified as used repeatedly and forcefully by organizational members. Each subsequent interaction afforded another data point and set of themes, which afforded us an organic way of identifying dominate organizational themes as they emerged. As a participant in the branding effort, the second author was included in meetings and email threads and made notes on Lab members’ points of contention and agreement while developing branding materials. These notes on the textual materials produced through the branding efforts specifically noted which voices emerged as authoritative in the approved materials (Koschmann et al, 2012).

We coupled social interactions with ongoing thematic analysis of textual materials. The first author kept a document of official Lab language used to communicate about the mission and purpose of the organization, drawing on numerous documents ranging from slide decks to
brochures to website content. This language document afforded a way to collect and continually analyze repetitive themes and shifting narratives offered by organizational members. The first author also analyzed all reports of the research group that had been studying Lab collaboration since 2014, which provided several years of insights into The Lab’s functioning.

Engagement in action research methodology meant that we analyzed data in situ instead of combing through findings at a later date (Huxham & Vangen, 2005). The first author worked with Lab members to weave individual themes into a work cycle diagram. We then collaborated with members to develop narratives that served to define and clarify collective identity and related themes. Throughout the process, that authors met regularly to discuss repeating and emergent themes. Due to the many data points we collected, the prolonged nature of the study, and the interventions we created, we continuously “played” with the data in various analysis processes (Huxham & Vangen, 2005, p. 44).

During our study we also began to write this manuscript, which allowed us to identify and reflect on existing theory in relation to emergent findings. Following Huxham’s (2003) suggestions for conducting action research, we made a conscious attempt to not too become overly reliant on existing theory and, thus, miss emergent theoretical findings. Writing the article at the same time we collected data and developed organizational materials provided another method of analysis where by we could reflect on our findings in the context of pre-existing theory, while at the same time applying theoretical insights from our writing to development of interventions (Eden & Huxham, 2006). Finally, throughout this study we reflected on the impact our dual roles had on the organization and our findings (Eden & Huxham, 2006). As both consultants who intervened in organizational practices and researchers who observed and articulated organizational practices, we found ourselves engaged in
conversations and data analysis that would have not been accessible had we taken on only one of these roles.

**Results**

Due to the fluid nature of action research and our research topics, we did not break apart research questions to describe organizational structures, collective identity, or member agency individually. Instead, we wrote our results in a narrative format that groups our findings into themes related to organizational structures, member agency, and collective identity and reveals their interconnectedness and subsequent effects.

**Research Question One: What are the organization’s current structures (i.e. practices, tools, and materials)?**

Production focused structures within The Lab afforded the organization significant success. The Lab’s procedures, materials, and events supported members in delivering high quality deliverables that kept funding flowing into The Lab and continually piqued new partners’ interest. Yet, in the background of this success, leadership described a persistent challenge: unifying Lab members. One leadership member explained, “You can ask 10 different people here the same question [on process or purpose] and you will get 10 different answers. I’m not worried that people see small things differently, but rather that we develop a sense of community.” In a separate meeting, a government member echoed this feeling when she stated, “We have many diverse people here and we need a rally cry to gather around because we all have different truths.”

Upon review of Lab materials, observations of events, and discussions with members we identified that The Lab does in fact have a ‘rally cry,’ the term *immersive collaboration*. The official definition states that The Lab:
defines immersive collaboration as a culture in which government analysts and researchers are synchronistically tackling the same problem ‘arm-in-arm’ with academic and industry partners. Immersive collaboration is about inclusiveness and everyone working from the same page because they have the opportunity to define, plan, implement, evaluate from a common starting point. Supporting immersive collaboration requires [Lab] leaders to engage with current and prospective participants to generate projects and processes that support interdisciplinary, multisectoral collaboration throughout [The Lab].”

The term *immersive collaboration* appeared in a range of organizational contexts. For example, the request for white papers from academic and industry performers included explicit language:

At [The Lab], we pride ourselves on our model of ‘immersive collaboration.’

What that means is that you will work closely with other collaborators from either academia, government, and/or industry on your project throughout the year. Our goal is to make sure that you have every opportunity to understand the context in which your work applies and to collaborate with other subject matter experts throughout the year.

The Lab’s official tri-fold brochure states, “[The] benefits of working with us [include] immersive collaboration that mutually benefits government, industry, academic partners.” The term also appears on the homepage of The Lab’s external site, “[The Lab] is an immersive collaboration. Our goal of rapid innovation, prototyping, and evaluation can only be realized through close, ongoing collaborations between government, industry, and academics.” The term immersive collaboration also appeared in presentations at Collaborator’s Day, an event for
current and prospective members to learn about projects for the coming year, as well as the end-of-year showcase of deliverables, called the Annual Symposium.

Members described *immersive collaboration* as one of the most important terms to The Lab and its unique culture. The term immersive collaboration seemed to permeate the organization’s communications and member’s psyche, yet members struggled in its enactment. Typically, new members draw from previous work experiences to predict how they should act at The Lab, yet their background was often not sufficient to handle the challenges of working with diverse members in such a unique organization. One leadership member stated, “New government members are often paralyzed when they arrive. They don’t know what to do here or how to do it.” This member, along with other government members we spoke to, explained how their former work environment consisted of rigid guidelines that eliminated ambiguity, projects that had immediate applied outcomes, and work that remained classified. Yet, The Lab pushed government members in a new direction, asking them to freely explore uncharted areas, to approach problems with a theoretical lens, and keep work as unclassified as possible. One government member said it took her twice as long to feel comfortable at The Lab as compared with previous positions, citing the challenges she encountered with switching to the “loose and innovative” culture at The Lab from the culture of her home organization where she had to “contend with all the red tape that government requires.”

On the surface immersive collaboration seemed to offer a unifying rally cry, yet enactment of the term is open to interpretation. While members routinely complete their deliverables by the end of the year, their day-to-day efforts require negotiation of their work within the context of their home organization, discipline, and The Lab. These negotiations appeared in conflicts related to:
• Scheduling and work completion. Members had to work within three different calendars: the academic calendar, the contract calendar, and the government calendar, which led to conflicts in how and when members could collaborate and work best.

• Pecking order and relationships. Confusion often arose among members (not leadership) as to who controlled what, where they belonged, and what influence they could have over others and vice versa.

• Terms and their meanings. Members needed to learn a unique set of lexicon related to The Lab, as well as contend with confusion around terms that had different meanings to members from other sectors and disciplines.

• Ownership and name recognition. Fears of compromising intellectual property often hindered direct collaboration, while those who fully collaborated experienced unexpected challenges related to data sharing, patents, and publications driven by sector or discipline specific assumptions.

Aware of these challenges, leadership had implemented a weekly research meeting (WRM) with the purpose of offering a space and time for all members to meet, collaborate, and share ideas. However, the WRMs took on a production focus with formal presentations given lecture style in the executive conference room. To the dismay of leadership, members expressed reluctance to use this space to share unpolished ideas.

Finally, the classified nature of some projects within The Lab permanently challenged the ability of members to engage in immersive collaboration. Government members spent most of their time in the SCIF\(^1\) on the third floor of the building. Only members with clearance could

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\(^1\) A SCIF, Sensitive Compartmented Information Facility, is used to prevent electronic surveillance or data leakage of classified information related to national security.
work in the SCIF, which prevented most non-government Lab members from entering the space. Recognizing the challenge the SCIF created for collaboration, leadership opened space in a neighboring building, that allowed all members to meet and work. Yet, challenges persisted with getting members to the collaborative space. Many academic members fell into past routines of working from their office and many industry partners had limited physical access as they were not located in the same city or state.

Research Question Two: When members are given agency to influence or remove current structures, as well as collaboratively develop new structures in support of collective identity, what structures emerge and which recede?

An important purpose of our study was to map the structures that were being used to achieve The Lab’s goals. In order to visually illustrate these structures, the first author developed a diagram with Google Drawings that showed the work cycle of members and contained information pertinent to: recruiting, pre-hire, hiring and onboarding, organizational planning, work groups, task support, personal development, deliverables, and separation. Each of these topic areas contained stories and suggestions from members, organizational tools and resources, summaries of events, and our personal observations. Based on member feedback, then combining and refining the diagram’s content, we narrowed the diagram to a final set of four points: coming to The Lab, how we work, tools for collaboration, and leaving The Lab. Leadership encouraged us to develop texts for each of these topic areas and place materials on the internal website to promote consistent information sharing and resources for new Lab members.

In mid-2017 we began developing narratives (texts) for the internal website, and the process proved both more challenging and more fruitful than expected. Since the materials
needed to represent all sectors of the organization, representatives from those sectors needed to be involved in the narrative development. Meetings became more complicated as each of the four texts we were building required different participants. Finding the right mix of representatives to gather appropriate input took time, as well as finding ways to coordinate the input of anywhere from 4 to eleven representatives on one document. We gathered input for the coming to The Lab text through individual meetings with representative members followed by one author’s integration of their feedback. The narrative included descriptions of where members came from, how members arrived at the Lab, the contracting cycle, and diagrams of organizational hierarchy and functioning. The narrative and diagrams developed with members directly supported the challenges members had experienced related to scheduling and relationships as described above.

We took a different approach to development of the second narrative, called how we work, by gathering representatives for a bi-weekly meeting. Although all 9 representatives invited could not attend every meeting, approximately 5 to 6 members attended each meeting, affording a vibrant discussion on organizational culture and procedures. Meetings entailed review of portions of the narrative drafted prior to the meeting. Members would often argue about various statements and concepts, discussing different meaning of key terms or phrases in their sector or discipline and often sharing that their individual experience was not represented in the “official” narrative. These conversations provided new perspectives while also clarifying assumptions and misunderstandings. Often, a significant portion of the bi-weekly meetings would circle back to discussions from previous meetings as participants attempted to agree on the official representation of a concept or statement. As Barbour and James (2015) described in the Toxic Waste Facility they studied, these meetings appeared to serve a crucial organizational
role, offering a space for representatives to set aside their focus on deliverables and reflect on The Lab’s internal processes and the tools needed to support them.

Outcomes of the *how we work* narrative meetings included defining the role of the organization and members, clarifying *immersive collaboration* in action, outlining conflict resolution expectations, highlighting important terms, providing meeting protocols, and creating new events that could acculturate and unify members. A theme that re-emerged at every meeting was the tension between trying to immersively collaborate and actually doing so. Participants explained that while The Lab always talked about immersive collaboration, individual member projects had to remain autonomous for several structural reasons. First, the government members serve three-year terms rather than working on contracts, while academic and industry performers are on annual contracts. This structure means that the two groups, the govies and the performers (academic and industry) could not task one another with work. Turnover and competing roles provided another challenge, in that even when a government participant volunteered to contribute content to a deliverable, a complication could cause that member to leave or drop their portion of the deliverable content.

One intervention that was created to manage this tension (and is included in the “*tools for collaboration*” narrative) was development of the Team Charter. The goal of the Charter was to document the team’s goal and how it contributed to the work of The Lab, while also specifying each team members’ individual goal and deliverable to clarify everyone’s contribution and hold all team members accountable. While the team charter was an official part of The Lab’s procedures, we learned through conversations with team leaders that it was not typically used. Leaders had personal preferences for managing their team’s projects, but perhaps ironically, the participants who met with us to create the official narratives often ended up asking whether they
could actually enact the conceptual idea of immersive collaboration and, if so, how. In fact, the discussions of the “how we work” narrative became so complex and messy, that to date we have been unable to have discussions around the 3rd and 4th narratives regarding “tools for collaboration” and “leaving The Lab.”

**RQ3: What are the effects of these structures on member agency and collective identity?**

At the time of this writing we are still in the process of collecting and analyzing data. The Annual Symposium at the beginning of December will be an important site for talking to Lab members about their experiences this year and helping us evaluate the current state of collective identity. For now we use this space to share some current impressions.

It is clear that one of the biggest challenges for Lab members is the ongoing tension between individual agency and collaboration. In fact, while The Lab’s branding initiative began in January of this year, as of the date of this writing the branding strategy has not yet been communicated to the Lab. This suggests that the leadership recognizes the delicate nature of “imposing” an authoritative text on Lab members, and that more conversations need to take place to give all members a voice in this process. How to do that is an ongoing challenge.

As suggested above, there is evidence that Lab members do identify with the idea of immersive collaboration. One government member describes the Lab as having an “ethos of collaboration” and when people are asked what makes the Lab unique, members often refer to the diversity of participants and a critical factor in its success. For example, one faculty member commented that he had experienced breakthroughs in his own work based on conversations with government members and faculty from other disciplines, because this provided perspectives he had not previously considered. Government members have similarly commented on the value of
working with faculty from behavioral sciences that enable them to see things in a new way. When asked what contributes to innovation at the Lab, several participants commented that The Lab allows people to listen and learn from others rather than having to be the expert, and that workshops and hack-a-thons allow ideas to be generated in new and exciting ways. Ironically, we described earlier than there was resistance to an intervention designed by leadership specifically to encourage Lab members to share early ideas and brainstorm. An interesting question therefore becomes: how do we frame activities in such a way that Lab members feel free to “play” with new ideas rather than “perform” by presenting polished work? These spaces are imperative for immersive collaboration, but not all Lab members appear to have these experiences—or experience them in the same way.

While we have more analysis to do to answer Research Question Three, a final thought for now is the importance of supporting individual agency through allowing members to find the work style and practices that work best for them, while also clarifying the various tools and techniques The Lab has created to support immersive collaboration. Communicating how individual member participation (conversations) will be evaluated and rewarded in the context of immersive collaboration (the authoritative text) should be an important way to help Lab members balance individual agency and collective identity.

**Discussion & Limitations**

The purpose of this study was to use action research to examine the structures of one cross sector partnership (XSP) designed to help members complete their work and how those structures support or impede development of collective identity. Collective identity is believed to be central to helping organizational members from several different backgrounds (government, industry, nonprofit, and academic) engage in collaboration required to achieve The Lab’s goals.
of developing innovative human and technical solutions to the complex challenges of data analytics in the context of national security. Our action research method included documenting existing structures, interventions, and processes, observing Lab meetings and events, and a series of individual and group conversations with key Lab participants to construct a set of four narratives or texts that describe the workflow at The Lab including (1) coming to The Lab, (2) how we work, (3) tools for collaboration, and (4) leaving The Lab. To date we have had individual conversation with members regarding narrative one and several group conversations around “how we work.” As described above, these conversations revealed major tensions between conversations (how the work is done) and texts, such as the central Lab value of immersive collaboration, which we present as an authoritative text. While we have more data collection and analysis to complete, below we discuss our key conclusions to date and the limitations of our study.

When newcomers arrive at The Lab, especially those from the government sector, they are often unsure how to get started in this new environment. They are afforded a new level of agency or autonomy at The Lab, which is both a major attraction for the recruitment of new members while simultaneously creating some paralysis as people struggle to learn a new way to work. In order to facilitate the acclimation process, a practical goal of this work was the creation of a set of narratives and tools that can be placed on an internal Lab website and serve as an ongoing resource for Lab members. In attempting to documents workflow and processes, however, we stumbled upon the pervasive tension that Koschmann et al (2012) describe between conversations and texts. While there is what we have identified as an authoritative text around immersive collaboration (government, industry, and academics working arm-in-arm to solve
complex challenges of data analysis), there are varied conversations among Lab members regarding how— and even whether— this is put into practice.

We have concluded that the task of creating a single narrative of “how we work” was perhaps setting ourselves up for failure, as there is no unitary work experience at The Lab. In fact, top down efforts to facilitate a single method (such as a weekly research meeting) or tool (such as the Team Charter) have been resisted by participants in favor of grassroots approaches, such as hack-a-thons sponsored by individual teams. Documenting a single set of practices is therefore impossible, and while leadership assumed this would help create a sense of collective identity, our research suggests this may come at the expense of individual agency. Lab leadership appears to have recognized this challenge in their decision not to impose a Lab “brand” based on conversations among a small group of Lab members (primarily leadership) at the beginning of the year. On the other hand, they may be in the process of collecting feedback from more Lab participants before communicating the brand to all members. While have not yet had a chance to talk about this with leadership, this would be our recommendations based on our findings to date.

Based on our action research method we have concluded that Lab members do, in fact, perceive collaboration among diverse participants as the central feature that makes The Lab unique and leads to innovative research and practical solutions. We therefore feel comfortable stating that there is a sense of collective identity at The Lab. However, there remains a challenge of how to help newcomers acclimate to The Lab and how to navigate the tension between individual agency and collective identity. The answer seems to lie in finding the sweet spot in which we provide an array of suggestions for work processes that support immersive collaboration while not requiring strict set of rules to be followed.
Our study is limited in at least two ways: the use of one case example of an XSP and the action research methodology, which is criticized as one-off and hard to replicate (Eden & Huxham, 2006). In keeping with previous studies of XSPs (Barbour & James, 2005; Keyton et al, 2009; Koschmann, 2012) we believe our results have practical value to this organization and are in fact transferable to other XSPs. Further, we engaged in ongoing reflexivity through conversations among the researchers, as well as with Lab leadership and participants to serve as a member check on our conclusions. We are excited about the insights we are gaining and look forward to further developing our implications as we complete data collection and analysis for the remainder of 2017.
References


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