

Roadmap

TOOLS FOR NAVIGATING COMPLEX DECISIONS

IT Collaboration: Multi-Institutional Partnerships to Develop, Manage, and Operate IT Resources

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KEY FINDINGS

- ▶ Among the institutions studied, collaborators are more likely to be large, public institutions, while non-collaborators are predominantly private bachelor's and master's institutions.
- ▶ Collaboration occurs most frequently in areas where institutions share common needs including network infrastructure, enterprise information systems, and learning management systems.
- ▶ The majority of respondents (85 percent) are more likely to collaborate with IT leaders with whom they have a long-standing relationship.
- ▶ The most important factors when forming collaborations are selecting partners with whom one shares objectives (72 percent), having a personal relationship with the IT leader (44 percent), and having institutional missions that are like one's own (43 percent).
- ▶ Respondents are pleased with the results of their most significant collaborations. The majority (65 percent) report their most significant collaboration is meeting its stated objective. An additional 23 percent report their collaboration exceeds or significantly exceeds its stated objective.
- ▶ The factors that appear to positively influence a collaboration's success include:
 - ◆ Governing boards and bylaws
 - ◆ Formal agreements
 - ◆ Frequent communication
 - ◆ Willingness to compromise on important issues
 - ◆ Sufficient time for consultation when decisions need to be made
- ▶ Documented, objective evidence of the benefits of collaboration and the successful participation of peer institutions in collaborations would motivate non-collaborators to participate in a collaboration.

Summary of Factors That Relate to Successful Collaborations

Area	Factors
Governance	Governing board
	Written bylaws
Agreements	Formal agreement
	Clear delineation of risk
	Definition of financial responsibilities of all parties
Communications	Specification of decision-making authority
	Frequent communications
	Informed decision makers and sponsors
Decision making	Regular measurement of benefits
	Willingness to compromise
	Sufficient time for decision makers to consult with their institutions

Technology has vastly improved our ability to collaborate. E-mail, instant messaging, cell phones, and networks place us in constant contact with colleagues from around the campus and the world. We also possess a greater ability to collaborate to develop and deliver the technology resources that sustain the modern college or university. The EDUCAUSE Center for Applied Research (ECAR) study, *IT Collaboration: Multi-Institutional Partnerships to Develop, Manage, and Operate IT Resources*, examines how and why

This ECAR roadmap synthesizes the results from a screening survey of 586 higher education institutions and two follow-up surveys, one of 157 institutions active in collaboration and the other of 113 institutions that are not active in collaboration. The surveys were administered in November and December of 2006, and they were supplemented by interviews with IT executives engaged in IT collaborations. For the full analysis, see the 2007 ECAR study, IT Collaboration: Multi-Institutional Partnerships to Develop, Manage, and Operate IT Resources, by Philip Goldstein. To order the full study or to learn about subscribing to ECAR, visit the ECAR Web site at <http://www.educause.edu/ecar/> or contact us at ecar@educause.edu.

TERMINOLOGY

The topic of collaboration offers many dimensions and avenues of study. We elected to study collaboration between IT organizations to develop and deliver essential technology resources. We included in our scope of study four forms of multi-institutional relationships:

- ▀ Partnerships to develop a shared IT resource
- ▀ Partnerships to provide a shared IT service
- ▀ A single institution providing an essential IT resource to one or more other institutions
- ▀ A single institution that elects to become the recipient of an essential IT resource from one or more institutions

We defined an essential IT resource to mean any service, tool, or application for which reliability and quality are of paramount importance to the collaborating institutions, to a significant number of users at the collaborating institutions, or to a critically important group of users.

institutions collaborate. The study assesses the attitudes and experiences of 270 institutions, including those intensively involved in collaboration and those who, for now, have chosen to be non-collaborators. The picture that emerges is of a community comprising two groups: collaborators, who are committed to partnerships with other institutions as a valued strategy to cost-effectively develop and deliver IT resources, and non-collaborators, who are open-minded about the potential of collaboration but are wary of the costs and complexities to engage in it.

Cooperation is a hallmark of the higher education IT community. We have no doubt that nearly all institutions share expertise and advice. Collaboration, however, requires more than an exchange of ideas. It requires formal pooling of resources, sharing risk, and relinquishing control to a joint effort to meet a shared objective. Of the 586 respondents to our screening survey, we found that 68.8 percent are engaged in at least one form of collaboration involving an essential IT resource. A follow-on survey of 157 institutions that collaborate reveals that multi-institutional partnerships to provide IT resources is the most prevalent form of collaboration (71.3 percent of respondents). This is followed by respondents who receive an IT resource from another institution (66.9 percent), respondents that are the sole provider of IT resources to other institutions (43.9 percent), and respondents engaged in collaborations to develop an IT resource (40.1 percent). Many respondents are engaged in more than one of these four forms of collaboration.

Institutions pursue collaboration as a means to control costs, enhance service, and gain access to better technology. These were among the most frequently identified reasons to collaborate across all forms of collaboration by the respondents to our survey. Many also engage in IT

collaborations to align with a broader commitment their institutions have made to collaborate with others. Some, but not all, of these respondents are public institutions that are leveraging opportunities or complying with mandates to work with sister campuses in a state system of higher education. Other institutions simply place an enhanced importance on collaboration.

The most prevalent areas of collaboration are network infrastructure, enterprise information systems, and learning management systems. No technology area appears completely devoid of collaboration. Some of the lowest participation rates can be explained by the nature of the technology area. For example, only 7.1 percent of respondents report engagement in collaborations to develop a data center. While the future may see more collaboration in this area, it is understandable that few today are engaged in joint projects to build data centers. The expense and complexity of this form of project present significant hurdles to individual campuses.

Institutional Differences: Collaborators and Non-Collaborators

In addition to detailed analysis of 157 institutions engaged in collaborations, we also studied 113 institutions that identified themselves as non-collaborators, and we found interesting differences between the two groups. First, the two populations split along public and private institutional control. Nearly three-quarters (74 percent) of the respondents to the collaborators survey are public institutions. The distribution of respondents to the non-collaborators survey is almost the mirror image: 72 percent of respondents to this survey are private institutions. There are also differences in the two populations by Carnegie classification. The largest segment of respondents to the

METHODOLOGY

- ▶ A literature review to identify issues and develop research questions
- ▶ A Web-based screening survey of 586 institutions among the EDUCAUSE membership to identify collaborators and non-collaborators
- ▶ A detailed follow-up Web survey that asked tailored questions of 157 institutions presently engaged in at least one form of collaboration and a second with tailored questions for 113 institutions that have elected not to participate in any IT collaborations at this time
- ▶ Qualitative phone interviews with IT leaders from 30 institutions including both collaborators and non-collaborators
- ▶ Consultation with a select group of chief information officers who are extensively engaged in collaboration to help frame our analysis and validate our conclusions
- ▶ Two in-depth case studies that look at how collaborators form, manage, and sustain their ventures

collaborators survey are doctoral institutions (30.5 percent) followed by master's institutions. In contrast, the largest segment of respondents to the non-collaborators survey are bachelor's institutions (34.5 percent).

We found that respondents who are engaged in collaborations believe that their institutions more aggressively adopt innovations, are more supportive of collaboration outside of IT, and are more open and inquisitive in their pursuit of new ideas. Seventy-four percent of respondents to the collaborators survey agreed or strongly agreed that their institutions collaborate frequently in areas outside of IT. Conversely, only 36.4 percent of non-collaborators agreed or strongly agreed with the same statement. In this sense, it appears that the IT organization is acting in a manner consistent with the behaviors and values of the rest of the institution. Respondents to the collaboration survey agreed more strongly than did non-collaborators that their institutions place a high value on innovation in administrative operations and on managers who are entrepreneurial.

Forming and Sustaining Collaborations

The academic literature often uses the language of personal relationships to describe collaboration. Terms such as *courting*, *dating*, and *marriage* are used metaphorically to describe the stages of organizational collaboration. Higher education IT leaders appear to view their collaborations through a similar lens. Nearly 85 percent of respondents to the collaborators survey agree that they collaborate with institutional leaders with whom they have a long-standing professional relationship. However, this is not the only factor that goes into selecting a partner. Collaborators are also looking for partners that will be recognized by their institution (similar mission) and who seek similar benefits from a collaboration. Secondarily, respondents are looking for someone who is like them. Slightly more than 40 percent

of respondents told us they choose partners they have relationships with and that are from institutions similar to their own. The tertiary set of factors has to do with the quality of the prospective partner. Between 20 and 30 percent of respondents appear to place an emphasis on understanding potential partners' technology capability, IT staff skills, and willingness to share risk.

Respondents engage in a broad set of activities to evaluate the quality of a collaboration opportunity. The most frequently performed activities are to evaluate the onetime and recurring costs of the collaboration. The least frequently performed activities are developing a set of quantifiable objectives for the collaboration and measuring baseline service levels (pre-collaboration). About one-third of respondents do not perform one or both of these activities. For now, it appears that personal relationship takes the place of formal vetting of collaboration partners. Only 23.6 percent agree that they formally vet their collaboration partners. The strong emphasis on personal relationships raises questions about the scalability of collaboration throughout the higher education community. If institutions are only comfortable collaborating with those they know or are most like them, will collaboration only be able to occur in small niches? Will small institutions that might benefit greatly from access to technology and services from larger institutions have the relationships they need to access and forge those relationships? The personal nature of collaboration also raises important questions about its sustainability. If collaborations are forged on personal relationships between leaders, can they be sustained when those leaders move on to new jobs and new institutions?

Respondents in general felt their collaborations could sustain a change in either the leadership in their IT organization or their institution. On a 5-point scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly

RECOMMENDATIONS

Based on its findings in *IT Collaboration: Multi-Institutional Partnerships to Develop, Manage, and Operate IT Resources*, ECAR offers the following recommendations to institutions engaged in IT collaborations:

1. Allow sufficient time for the collaboration to form and common objectives to be established. Like any team process, collaborations need to follow a process of forming as a group.

It takes time and dialogue to develop the understanding, trust, and common purpose that will sustain the collaboration. It is also an important form of vetting that collaborators administer to one another. If partners cannot achieve common visions for the collaboration at the outset, this is a good reason to abandon the effort.

2. Adopt formal agreements and governance to define roles, authority, and decision-making practices among the collaborators.

Even collaborations among long-standing colleagues benefit from structure and formality. The process of negotiating formal agreements forces participants to specify their objectives and understanding. Often, this is the only way to surface legitimate misunderstanding or disagreement. More casual approaches leave participants at risk of thinking they agree without really knowing if they do. The development of formal governance and agreements also provides participants with an opportunity to define structures and principles that guide how they will make decisions.

3. Communicate frequently with all participants in the collaboration.

Communication is the fuel that makes collaborations go. Frequent communication among the partners sustains commitment and provides the information that will facilitate efficient decision making. Communication must embrace the individual participants in the collaboration as well. It is important to provide sufficient face-to-face interaction for informal communication channels between individuals engaged in the collaboration to emerge.

4. Regularly measure costs and benefits of the collaboration.

Objective, quantitative measures will improve decision making among collaborators. It will also make it easier to demonstrate to the institutions supporting the collaboration the benefits of their investment and make the venture more sustainable. Lastly, demonstrated evidence of benefits is a critical ingredient to recruiting more diverse and numerous institutions to participate in collaborations.

agree), respondents' mean response to statements about the ability of their collaborations to sustain a transition in either IT or institutional leadership was greater than 3.50. Those who keep their institution well-informed of the extent of their IT collaborations are even more confident in the sustainability of their institution's commitment to their IT collaborations.

Succeeding at Collaboration

Respondents are very positive about the success of their collaborations. Sixty-five percent believe that their most significant IT collaboration is meeting its stated objectives, and an additional 23 percent believe their collaboration is exceeding its stated objective. The majority of respondents believe that participation in their most significant collaboration is saving them money and enhancing their institution's technology capability. We identified several attributes of collaborations that appear to influence successful outcomes. Collaborations with formal governance including bylaws and

structured agreements tend to be more successful. Likewise, collaborators who engage in frequent communication and keep decision makers well-informed also report greater satisfaction with their outcomes. Respondents involved in collaborations in which participants demonstrate a willingness to compromise and allow sufficient time for consultation within participating institutions before making a decision also report better outcomes. The common thread running through all these elements is that they help build trust and shared objectives among the participants. Our analysis of success factors was reinforced by examining failed collaborations. Among collaborators, 21 percent of respondents were also involved in collaborations that failed to meet their stated objectives or dissolved prematurely. The primary reasons for failure were the mirror image of the factors that led to success. The most frequently reported causes of failed collaborations include ineffective governance, differing objectives among participants, ineffective leadership, and insufficient communication.