The Association of Theological Schools (ATS), as part of its comprehensive leadership studies, conducted research aimed at understanding the current state and future trajectory of technology and its leaders within ATS member schools. The study explored the work of the senior information technologist (IT) and the senior educational technologist (EdTech) to forecast future needs of leadership in this sector and to identify the needs to be addressed in an updated curriculum for leadership education at ATS.

**Significant shifts in the roles**

Technology leaders in theological schools are expected to adapt and be knowledgeable about an array of specialties. As the rate of change increases, so does the necessary knowledge base of the technology professional. The top two areas where senior IT officers reported change are (1) having more responsibility overseeing technology across the whole school (classroom, website, social media), not just in IT infrastructure, and (2) an increase in support and training work with faculty and staff. For senior EdTech officers, they are (1) an increase in time providing technical support to faculty and staff, and (2) an increase in resource allocation for educational technology. Interviewees further described an increase in recognition of the necessity of technology leadership and inclusion, particularly of senior IT leaders, on the executive cabinet. Finally, the study found increasing IT leadership concerns about information security vulnerabilities in schools.

COVID-19 was a turning point for many schools, creating a new environment for senior IT leaders in all sectors. “I had to do in three days what this organization was trying to avoid for years,” said one EdTech leader. The pandemic served as a catalyst for rapid technological adoption, pushing many schools—some that were already mostly or fully online and others that had little to no online offerings—to enhance or embrace online learning and digital tools. New work ranged from oversight of new software and technical troubleshooting to oversight of systemic change and being brought onto the executive cabinet to contribute to institution-wide decision making.

**Preparation for the roles**

Current senior IT leaders have been in their role for an average of 7.3 years so far (ranging from 0 to 26 years), the longest among all senior officers in the larger leadership studies project. Senior IT leaders also had on average the longest experience working in the field prior to their current position, as compared to all senior officers in the
project (ten years, with the second being senior student personnel officers at six years). This is to be expected, given the discipline-specific knowledge and skill required of the role and the rapid rate of technological change in the field. Longevity ensures broader awareness of the discipline, and schools hire IT officers for their expert knowledge of the field. Senior EdTech leaders had four and a half years of experience in the field.

At the same time, senior IT leaders at ATS schools land in the middle regarding years of experience as a senior IT officer prior to their current position—four years’ experience on average. Senior development officers and CFOs have more experience in senior roles in their respective fields, while CEOs, CAOs, and senior student personnel officers have less. Senior EdTech officers rank second shortest in terms of prior experience in a senior role in their field, with 2.7 years.

Regarding educational preparation, 44% have no formal education for the work they do, about one-third (31%) have at least some technology education, and just over a quarter (26%) of IT leaders have industry certification. Interestingly, a large majority of technology leaders (75%) have some background in theology, which may be the reason that some consider their work as ministry they offer to God, and why many remain in a position that falls behind competitive salaries in the larger technology industry. One leader who worked her way up from student worker to her current position explained, “[T]he main reason I’ve stayed is that I believe in the mission of the school.”

Responses to the survey question, “What has helped you attain the current role you have?” further corroborate the distinct pathways to senior IT and EdTech positions. As seen in Figure 1 below, while the top three for both are the same—growth and development of skills, education, and innate abilities—the order and distribution differ. Senior IT leaders most frequently attribute being in their current positions to the growth and development of skills and innate abilities, while senior EdTech leaders credit their education and the growth and development of skills.

![Figure 1, IT and EdTech Responses to, “What has helped you attain the current role you have?”](image-url)
Current nature of the roles

Findings indicate wide variations in technology structures at member schools, ranging from solitary individuals fulfilling dual roles to distributed responsibilities across separate departments. The study identified a variety of job titles associated with these roles—27 substantially different titles reported for the 57 senior IT officers and 38 distinct titles for the 63 senior EdTech officers who participated—including many that are outside technology (e.g., library management, accreditation, Title IX responsibilities). In many ways, this is reflective of how they came to their roles. As a senior IT officer from a small denominational school said, the school “just added this to my job.”

Senior IT leaders are more likely to come from business (31%) or non-theological higher education (20%)—second only to CFOs for sectors outside of theological education or congregational ministry—and senior EdTech leaders, from non-theological higher education (31%) or directly from graduate theological education (23%). The percentages are not as high for a single sector as they are for CAOs, CEOs (59% and 44% graduate theological education, respectively), and CFOs (42% business). These figures suggest a technology leader workforce that come to theological schools from a range of backgrounds in knowledge and experience.

As highlighted above in changes to the role, senior technology leaders in theological schools today oversee just about all technology systems at the schools. Around 75% said that the IT/EdTech departments administer all or almost all systems, 20% reported a mix between departments and centralized IT/EdTech, and only 4% said that each department administers its own system at the school. “Technology nowadays, every single thing that every single person does is on us. No matter what their job is at the seminary, no matter what they do, we’re supporting it,” said a senior Dual-Tech leader at a large Mainline seminary.

The top area of responsibility for senior IT leaders is technology and infrastructure (54% of IT respondents). A second tier of responsibilities includes purchase/approval of hardware (32%), ed tech software (32%), lead/manage IT staff (21%), computer network security (21%), budget (19%), and helpdesk (19%). Twenty-eight additional responsibilities drop off from there. The top three areas for senior EdTech leaders are technical support/training for faculty and staff (67%), ed tech software (44%), and online courses/curriculum (43%). The remaining 23 additional responsibilities were reported by less than 10% each.

Effectiveness in these leadership roles is critical to the success of the institution. Interviewees were asked hypothetically: "If you were hiring someone for your position, what qualities or skills would you look for to ensure effectiveness in the role?" While technical skills were named by multiple respondents, interpersonal skills and other dispositions were most frequently named. (See Figure 2.)

Technology leaders mentioned many interpersonal traits or skills that are important for effectiveness in the long term for their roles.

- Ability to explain clearly
- Adaptability to constant change
- Clear written communication
- Collaboration
- Creativity
- Cultural sensitivity
- Customer service (friendliness)
- Flexibility
- Leadership
- Listening skills
- Patience
- Strategic planning
- Understanding business
- Understanding pedagogy

Figure 2, Qualities for Effectiveness
As institutions grapple with the need to innovate and adapt, there is a related need for strategic engagement of technology leaders in organizational decision-making. As seen in Figure 3 above, findings reveal a glaring gap in this area. Less than 20% of surveyed leaders reported being part of ongoing strategic discussions in their institutions even as 65% of IT and 50% of EdTech leaders said they sit on the senior-level cabinet, underscoring the need for greater incorporation of these leaders in high-level decisions. For example, 93% of senior IT leaders and 82% of senior EdTech leaders reported not being involved in the budget-making process. Only 18% IT and 28% EdTech leaders said they had a designated budget at all.

Satisfaction and stressors
The impact of job stress on this population of leaders cannot be overstated given the critical role they play for the daily functioning of the schools. For both IT and EdTech leaders, working in an under-resourced environment is the most frequently named work-related stressor (44% and 37%, respectively). Dealing with difficult employees and colleagues is second for IT leaders, at 32%, and for EdTech leaders, it is balancing demanding work hours with other responsibilities, at 35%.

The strongest predictors of technology leaders actively looking for other jobs is dissatisfaction with the work they do and the ability to remain calm under stress. Thankfully, of various work features, the work they do (3.6), personal relationships with coworkers (3.7), and the functioning of the work team (3.6) are the highest rated for job satisfaction (between slightly satisfied and satisfied on a 4-point scale). That said, though all leaders in the larger study, on average, disagree that they have actively looked for other jobs, technology leaders are the closest to agree. This varies statistically by gender (men more likely) and size of institution (those at larger schools are more likely). So, while most are satisfied with the work they do, those who are not are likely to be actively looking to work elsewhere.

Needs
Because a large proportion of technology leaders—particularly IT leaders—do not come from theological education, it is important for schools to provide orientation to the industry and institution. In her final report, role advisor Julie Newton explains,

Higher education orientation—those coming in from non-HigherEd backgrounds found the organizational differences to be stark. Some felt an introduction to academia would have been helpful, covering the "big picture," to provide better context.

Theological education orientation—to highlight the context of theological education, ideally include the fields that people study but also how it "fits together," including denominations and key aspects of theological education.

Institution-specific orientation—general onboarding including insight into the seminary’s culture, policies, programs, histories, or more specific role documentation from their predecessors would be helpful. Multiple people admitted to not knowing how things worked in the beginning, including expectations, benefits, and more.
Many mentioned interest in exactly the type of cohort networking that the Technology in Theological Education Group (TTEG) has been offering annually, but agreed that being more active in the Technology Professionals community on Engage ATS and increased outreach from ATS could help them stay better informed of offerings.

Finally, schools would do well to continue the positive direction of greater incorporation of senior technology leaders in strategic conversations and decision-making, particularly related to budget matters. Their expertise is uniquely theirs, and schools would only benefit from what these leaders bring to the conversation.

The study underscores the indispensable role of technology leadership in shaping the future of theological education, emphasizing the need for continuous adaptation, innovation, and strategic engagement. While COVID presented challenges, it also showcased the resilience and adaptability of technology leaders. There is consensus that the post-pandemic world will be fundamentally different, necessitating a reevaluation of technological strategies and practices. Engage your technology leaders in conversations about the future—you will not be sorry you did!

For a complete look at the study, including findings about technologies used and outsourcing tech services, see the final report on the ATS website.

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