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In this issue:

Computing Professional Association Membership: An Exploration of Membership Needs and Motivations

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Computing Professional Association Membership: An Exploration of Membership Needs and Motivations

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Abstract

Computing professionals have several options in terms of professional association membership. Thus, computing professional associations need a reliable system for effectively measuring factors that influence their membership. To that end, we describe the development of the *Ideal Computing Professional Association Survey* (ICPAS) and present the descriptive results and measures of reliability of the first major data collection ($N=220$) effort using ICPAS within the Association of Information Technology Professionals. The ICPAS incorporates seven domains related to individual membership in professional associations: career enhancing opportunities; information access and dissemination services; professional networking opportunities; communication services; leadership and community service opportunities; advocacy services and opportunities; and member discount services. Recommendations are made to national, regional, and chapter leadership in light of the results.

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1. INTRODUCTION AND PURPOSE

Today, computing and information systems professionals have a wide array of options in terms of professional association memberships ranging from traditional broad-scoped professional associations (e.g., Association of Information Technology Professionals or the Association of Computing Machinery) to memberships in specific users groups (e.g., Rational Unified Process Users Groups) that are closely aligned with their career paths or technological interests. With the increasing number of choices and specializations within

computing fields, we need a mechanism to better understand what motivates individuals to join and maintain membership in professional associations. Anticipated benefit of such mechanism is that it will provide better insights for professional associations to provide targeted services to its members.

Though the topic of discourse appears to be a well-understood problem, there are actually very few published manuscripts that investigate the phenomena. Thus, the problems addressed by this research are two-fold: 1) determine the factors that motivate

individuals to join and maintain professional association membership, and 2) to gain insight in the current Association of Information Technology Professional membership. The overarching goal of this research is to better understand what expectations and motives an individual has in professional association membership in an effort to inform decision-making by professional associations.

2. RELATED LITERATURE

Previous studies on professional associations in disciplines related to technology, management, or engineering have focused more on the impact of the associations and less on the motivations and needs of the individual members within the association. Some of the literature presented here dates back more than 20-years across related professional associations.

Ball and Harris (1982) presented survey results of the Society for Management Information Systems (SIMS) (later transformed into the Association of Information Systems), an organization that was initially composed of information systems (IS) executives across the United States to share and exchange management expertise. Their study showed the basic demographics of the survey respondents (a response rate of 29.8%), the overall satisfaction of members of SIMS, and some basic issues that the field might address in the following decade. However, the research did not employ any inferential statistics or attempt to generalize to other IS executives.

Corbin (1988) examined the role and impact of a professional society for career growth. He suggested even though a professional society can make an impact on all stages of a member's career, it is most important in the initial stages (Corbin, 1988). He further suggested that degree of impact depended upon participation level of the member within a professional society (Corbin, 1988). Discussions provided in this paper are based on data collected in 1988 and are relevant to aerospace engineers and the Institute for Electronics and Electrical Engineers (IEEE) professional society.

Oz (1992) examined the role of professional associations in establishing the professional standards of conduct that guide the ethical

behaviors of computing and information systems professionals. In particular, Oz thoroughly examined the similarities and differences of the Data Processing Management Association (Now AITP), the Institute for Computing Professionals (ICCP), the Association of Computing Machinery (ACM), the Canadian Information Processing Society (CIPS), and the British Computer Society (BCS) ethical codes of conduct. Results of the synthesis showed obligations to society, employers, clients, association members and colleagues, and the profession at large.

Swan and Newell (Swan & Newell., 1995) surveyed members of a professional association to determine its role in technology diffusion in the domain of production and inventory control. They found professional associations played an influential role in the diffusion of knowledge about new technologies to be adopted. The findings also indicate developmental and professional activities were important with the diffusion of technology more than educational activities of the professional association.

Lahndt-Hearney (1996) surveyed accredited engineering programs to determine relationships between industry and faculties. They found most engineering programs created industry ties by hiring industry engineers as adjuncts (Lahndt-Hearney, 1996). Also, faculties with professional licenses and industry engineers were more important for undergraduate programs than for graduate programs (Lahndt-Hearney, 1996). They also observed most engineering programs recruited tenure-track faculties who are registered to professional associations (Lahndt-Hearney, 1996).

Andrews and others (Andrews, Shein, & Holst, 1998) surveyed members of the IEEE on their needs for electronic access to products and services. Survey results indicated members prefer direct access to all publications instead of subscribing to specific publications (Andrews et al., 1998). With respect to features, members most wanted access to full text, access to cross-reference materials, and the ability to search based on phrases (Andrews et al., 1998). Results also suggested members want to be informed of new materials in their area of interest along with abstract of the material.

Gruen and others (Gruen, Summers, & Acito, 2000) empirically examined professional

associations' relationship-building efforts to enhance their member's commitment. The authors first developed a conceptual framework based on services marketing, relationship marketing, and organizational behavior literature. They then tested the framework by conducting a study in the context of a life insurance sales agents association by analyzing exploratory interviews of association members, chapter leaders, and association staff. Gruen and others reported that core service performance of the professional association directly affected member retention and participation. Local chapters were successful in creating more opportunities for members to interact with each other and enjoyed higher levels of coproduction activities and stable commitment.

Greenwood and others (Greenwood, Suddaby, & Hinings, 2002) studied the role of professional associations in legitimating change within a professional field. In this study, they analyzed major changes that occurred in the accounting services profession. They concluded professional associations were key agencies in facilitating change within professional domains as they clarify and endorse changes, as well as hold discussions on the change within the community. However, the change in itself is forced by market factors rather than by the professional associations.

Turner and others (Turner, Fisher, & Lowry, 2004) provide a structural equation model to show relationships of factors and their importance to stakeholders on defining an IS professional. This study analyzed nine factors and found the highest contributing factors were soft skills, information systems education, business education, and aspects of the work environment. Managers showed more interest towards business education, while students show more interest towards soft skills and work environment aspects of curriculum.

Backstrom and others (Backstrom, Huttenlocher, Lan, & Kleinberg, 2006) shifted their focus to social groups and what features of a community influence people to join and move between communities. Using data from two large communities, the social network LiveJournal and the publications from conferences listed the Digital Bibliography & Library Project (DBLP), they studied links between people within the communities and changes to these communities over time. In

social networks such as LiveJournal, an individual was more likely to join as the number of friends in the network increased and the direct links between these friends increased. For conferences in the DBLP, the probability of movement of authors between conferences was higher when conferences had similar bursts of topics of shared interest to the authors.

Apart from the above literature, there have been studies that explored how cultural and economic factors affect online collaboration among members of international professional association (Yu, Kumar, & Lang, 2007), investigations that utilized community of practice theories to provide recommendations to professional associations on using virtual communities to bolster their relationship with members (Cox & Morris, 2004), and studies on network alliance models to coordinate members actions via incentives (Dexter & Nault, 2006). The variety of studies about impact, needs assessment, and retention related to professional associations clearly illustrate the multidimensional concepts that may be part of the underlying phenomenon of professional associations. Thus, in this paper, we address the professional association as a multidimensional construct and attempt to bridge a gap of understanding the motivations and expectations of members of professional associations.

3. ASSOCIATION BACKGROUND

The current study focuses on the members of the Association of Information Technology Professionals (AITP), whose history traces back to a users group of machine accountants in Chicago, Illinois that was established in 1949. The members of a local group called the Machine Accountants Association (MAA) recognized the profound impact computing technology would have on business (AITP, 2008). The users group acknowledged the need to form a national professional association to address the growing issues associated with managing and using the technology. On December 26, 1951, the state of Illinois granted a charter and the National Machine Accountants Association (NMAA) was founded.

In the 1960s, the association sponsored a gathering of educators and business persons with the sole purpose of establishing the Certification in Data Processing (CDP) pro-

professional examination program to develop the young discipline. The certification initiative later evolved into the establishment of the Institute for Certification of Computing Professionals (ICCP), a sister organization charged with developing valid and reliable certifications for computing professionals. NMAA was also the genesis of several landmark academic journals in the broad fields of information systems, such as the *Journal of Data Management*, which served as a way to disseminate knowledge in the field. In 1962, the members of the NMAA decided to adopt a more progressive name for the times, the Data Processing Management Association (DPMA).

The professional association has strived to advocate the field and provide recognition of those individuals that have made substantial contributions. In 1969, the association created the *Computer Sciences Man-of-the-Year Award* for outstanding contributions to the industry. The award was renamed the *Distinguished Information Sciences Award* in 1980 and is awarded annually at the national conference (AITP, 2008). As the information technology industry has evolved, so has the association. In 1996, DPMA changed its name to the Association of Information Technology Professionals in an effort to keep up with the pace with the changing needs and interests of its members (AITP, 2008).

AITP has approximately 5,800 active members. Similar computing organizations such as IEEE Computer Society (IEEE, 2008) and ACM (ACM 2008) have much larger memberships at approximately 85,000 members and 90,000 members, respectively.

We chose AITP for this study because it attracts members from diverse backgrounds in the computing field at local, regional, and national levels. The rich history of AITP and the commitment of its leadership to understand and serve the membership made it an ideal candidate association for this research.

4. METHOD

Instrumentation

Recognition of the need to develop a system for effectively measuring factors that influence professional association membership served as a driver for this research. The instrument was first developed following an extensive literature search. Next, the in-

strument underwent a critical review by a focus group of computing professionals to clarify the intent and language of the survey items. After the focus group, the survey was reviewed by national board members of AITP serving as an expert review of the items and their intent. Modifications were made to the instrument to reflect the information gathered by both groups.

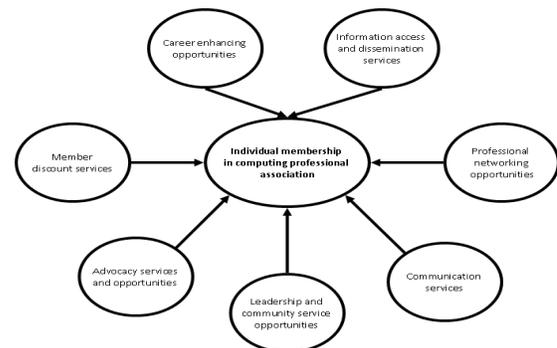


Figure 1. Domains in the *Ideal Computing Professional Association Survey*.

The final instrument (see Appendix B) has 52 items and is organized into seven domains theorized to influence individual membership: career enhancing opportunities; information access and dissemination services; professional networking opportunities; communication services; leadership and community service opportunities; advocacy services and opportunities; and member discount services. Additionally, the instrument included several demographic items and two free form items designed to collect additional information from respondents. The instrument was named the *Ideal Computing Professional Association Survey* (ICPAS) and its factors are visualized in Figure 1.

Procedures

The ICPAS was made accessible in a web-based format using WebSurveyor. The investigators made arrangements to provide a hyperlink to the ICPAS to current members of AITP and to post a link to the survey in AITP's online publication, the *Information Executive* (Ritzhaupt, 2008). AITP leaders at a local, regional and national level were encouraged to ask their members to respond to the anonymous survey. The survey was available for a 3-month period, and during this time, two emails were sent to the active AITP members. Respondents were informed

the purpose of the research was to: (1) to aid in the development and validation of an instrument related to computing professionals reasons for joining and maintaining membership in professional associations, (2) to examine the relationships between these factors and other relevant demographic criteria, and (3) to gain insight in the current AITP membership. Participants were informed that the survey was anonymous to ensure their personal information would not be divulged in any way.

Survey Respondents

Two hundred twenty-three individuals responded to the survey. Three of the survey respondents only answered a few (less than five) of the items, and thus, were removed from the sample, leaving a total of $N=220$ survey respondents. These respondents represented 35 different states from all regions of the United States. Six of the respondents resided in Canada. As of May 2008, the organization had 5,891 active members, which is a response rate of approximately 4% of the total membership. However, 3,367 (remaining are students) of these members are professional members, and 200 of the 220 respondents were professional members, which is approximately 6% of the professional membership.

Table 1 illustrates the age range, gender, employment status, income level, and education of the respondents. Approximately 70% of the respondents were male. Of the ethnicity of respondents, the vast majority (92.27%) indicated Caucasian/White. More than 90% of the respondents earned at least an associate's degree. Approximately 10% of the respondents were not currently employed and 55% were actively employed in private organizations. One of AITP's sister organizations is the Institute for Certification of Computing Professionals (ICCP), an organization established to credential the computing professionals (ICCP, 2008). The organization is charged with developing, validating, supporting and certifying devices that can be classified as industry certifications for the field of computing and information systems (as oppose to vendor certifications like A+). These certifications are shown in Table 3 with the distribution of the respondents that hold these credentials. As shown, the Certified Computing Professional (CCP) is held by approximately 21% of the

respondents. The CCP is the primary certification conferred by the ICCP.

Table 1. *Gender, age range, ethnicity, education attainment income level, and employment status distributions.*

| Category | n | % |
|---------------------------------|-----|-------|
| Gender | | |
| Female | 65 | 29.55 |
| Male | 155 | 70.45 |
| Age Ranges | | |
| 0-25 | 7 | 3.18 |
| 26-35 | 13 | 5.91 |
| 36-45 | 34 | 15.45 |
| 46-55 | 72 | 32.73 |
| 56-65 | 66 | 30.00 |
| > 65 | 27 | 12.27 |
| Ethnicity | | |
| African American/Black | 5 | 2.27 |
| American Indian/Alaska Native | 5 | 2.27 |
| Asian | 1 | 0.45 |
| Caucasian/White | 203 | 92.27 |
| Hawaiian/Other Pacific Islander | 1 | 0.45 |
| Hispanic/Latino | 5 | 2.27 |
| Education Attainment | | |
| Not specified | 1 | 0.45 |
| High School | 20 | 9.09 |
| Associates | 33 | 15.00 |
| Bachelors | 91 | 41.36 |
| Masters | 52 | 23.64 |
| Specialist | 6 | 2.73 |
| Doctorate | 17 | 7.73 |
| Income Level | | |
| Not specified | 22 | 10.00 |
| 0-\$25,000 | 6 | 2.73 |
| \$25,001-\$50,000 | 30 | 13.64 |
| \$50,001-\$75,000 | 48 | 21.82 |
| \$75,001-\$100,000 | 54 | 24.55 |
| \$100,000-\$150,000 | 45 | 20.45 |
| >\$150,000 | 15 | 6.82 |
| Employment status | | |
| Currently unemployed | 23 | 10.45 |
| Private organization | 121 | 55.00 |
| Public organization | 74 | 33.64 |

Table 2 illustrates how long the survey respondents have been members of AITP. The survey respondents ranged from individuals that have been members less than five year to more than 40 years. Notably, approx-

imately 50% of the respondents have been members for less than 10 years, indicating that more than half of the survey respondents are relatively new.

Table 2. *Membership duration distribution.*

| Membership Duration | n | % |
|---------------------|----|-------|
| Not specified | 1 | 0.45 |
| 0 – 5 | 59 | 26.82 |
| 6 – 10 | 51 | 23.18 |
| 11 – 15 | 23 | 10.45 |
| 16 – 20 | 19 | 8.64 |
| 21 – 25 | 26 | 11.82 |
| 26 – 30 | 19 | 8.64 |
| 31 – 35 | 8 | 3.64 |
| 36 – 40 | 10 | 4.55 |
| > 40 | 4 | 1.82 |

Table 3. *ICCP certification distribution.*

| Certification | n | % |
|--|----|------|
| Associate Computing Professional (ACP) | 7 | 3.18 |
| Certified Computing Professional (CCP) | 46 | 20.9 |
| Certified Data Management Professional (CDMP) | 2 | 0.91 |
| Certified Business Intelligence Professional (CBIP) | 1 | 0.45 |
| Certified Information Technology Compliance Professional (CITCP) | 1 | 0.45 |
| Associate IT Consultant (AITC) | 1 | 0.45 |
| Information Systems Professional (ISP) | 6 | 2.73 |

As a goal of this research is to better understand the membership of the AITP, having knowledge of the other professional associations current members are affiliated with is also of importance. Table 4 shows the other major professional computing associations and the distribution of survey respondents that are also active members in these associations. As can be gleaned, the two most popular associations were the Association of Computing Machinery (ACM), and the Institute of Electrical and Electronic Engineers (IEEE). Survey respondents that selected other were asked to write the names of other associations, the responses included numerous associations. Notably, the Project Management Institute (PMI) and the Professional Records and Information Services

Management (PRISM) association were noted by several survey respondents.

Table 4. *Other professional association memberships distribution.*

| AITP Regions | n | % |
|---|----|-------|
| Association of Computing Machinery (ACM) | 18 | 8.18 |
| Data Management Association (DAMA) | 3 | 1.36 |
| Institute of Electrical and Electronic Engineers (IEEE) | 16 | 7.27 |
| Association of Information Systems (AIS) | 4 | 1.82 |
| Canadian Information Processing Society (CIPS) | 4 | 1.82 |
| Independent Computer Consultants Association (ICCA) | 4 | 1.82 |
| Other | 36 | 16.36 |

Given a professional association requires the time and effort of its members, it is important to understand the amount of time an average member is willing to contribute to a professional association. As can be seen in Table 5, more than 65% of the survey respondents indicated they are willing to devote two or more hours a week to a professional association. In particular, it would appear that two to four hours per week is the most frequently cited range and is a reasonable expectation. Equally important is what a member is willing to pay for the professional association membership. More than 70% of the respondents indicated a willingness to pay somewhere in the range of \$51 to \$151 for an annual membership fee. As annual membership in AITP vary by region and chapter, as of May 2008, the average annual fee is \$132.09 ($SD=20.01$) in the range of \$105 to \$250. This indicates that the current annual fees are within an acceptable range according to most of the survey respondents.

The employment information of a professional association member is of particular importance. As shown in Table 6, approximately half of the respondents indicated their current employers did not offer any contributions to their professional association membership, while the other half of the respondents indicated their employers offered either partial or full reimbursement of payment for their membership in a professional association. The survey respondents

were currently employed in organizations of all sizes as shown in Table 6.

Table 5. *Professional association membership criteria distribution.*

| Professional association criteria | n | % |
|--|----------|----------|
| Hours per week for professional association | | |
| Not specified | 2 | 0.91 |
| None | 10 | 4.55 |
| 0 - 1 | 61 | 27.73 |
| 2 - 4 | 100 | 45.45 |
| 4 - 6 | 29 | 13.18 |
| > 6 | 18 | 8.18 |
| Willingness to pay annual membership fees | | |
| Not specified | 1 | 0.45 |
| None | 2 | 0.91 |
| 0-\$50 | 27 | 12.27 |
| \$51-\$100 | 64 | 29.09 |
| \$101-\$150 | 94 | 42.73 |
| \$151-\$200 | 22 | 10.00 |
| \$201-\$250 | 7 | 3.18 |
| \$250-\$300 | 2 | 0.91 |
| > \$300 | 1 | 0.45 |

Table 6. *Employer information distributions.*

| Employer information | n | % |
|---|----------|----------|
| Employer contributions to membership | | |
| Not specified | 1 | 0.45 |
| None | 108 | 49.09 |
| Partial reimbursement | 16 | 7.27 |
| Full reimbursement | 95 | 43.18 |
| Number of employees at workplace | | |
| Not specified | 29 | 13.18 |
| 0-25 | 32 | 14.55 |
| 26-150 | 27 | 12.27 |
| 151-500 | 36 | 16.36 |
| 501-1000 | 24 | 10.91 |
| 1000-25,000 | 51 | 23.18 |
| 25,001-50,000 | 8 | 3.64 |
| >50,000 | 13 | 5.91 |

In combination, the characteristics of the survey respondents represent a diverse range of AITP members. This is an indication that the results of this research may be generalizable to the larger population of AITP

members in light of stated limitations. Specifically, the results can be generalized to professional AITP members, but it would not be tenable to use these results to characterize the student members of AITP as only 10 students responded to the online survey.

5. RESULTS

Descriptive Analysis

In the previous section, we provided statistics on the demographics of respondents. In this section, we provide descriptive statistics on the seven domains (see figure 1) identified for this survey. The combined total of items from seven domains is 52. The response distributions for the 52 items did not exhibit any severe departures from normality with skewness for all items within the range of +/-1.5 and kurtosis for all items within the range of +/-1.5. Tables in each section provide the descriptive statistics, which include the response frequency percentages, average and standard deviation of the item responses, and subscale averages. In terms of missingness, respondents were not required to fill out any items. This instrument design decision resulted in very few missing responses (no more than six for any given item). Internal consistency reliability was evaluated according to social science standards of values equal to or greater than 0.7 (Nunnally, 1978).

Career enhancing opportunities domain:

This domain includes nine different items that relate to how professional associations serve their members by providing services that can enhance members' careers. Appendix A

Table 8 in Appendix A contains the descriptive statistics for the career-enhancing opportunities domain. The internal consistency reliability (Cronbach's alpha) for the domain was acceptable at $\alpha = .79$. More than 80% of the respondents agreed or strongly agreed that associations should allow members access to technical training workshops (88.2%), access to soft skill training workshops (84.1%), to receive career enhancing advices (89.1%), and to use goodwill of association recognition in the career (81.8%). Respondents were least interested in access to part-time/ internship employment listings, which is perhaps indicative of the vast majority of the responders being professional

members of AITP. The most important element of this domain was access to technical training workshops. Overall, the mean for the Career-enhancing opportunities domain is fairly high at $M=4.04$ ($SD=0.48$).

Information access and dissemination

services domain: This domain includes ten unique items that relate to how professional associations can facilitate the access and dissemination of relevant information to members.

Table 9 in Appendix A contains the descriptive statistics for the information access and dissemination services domain. The internal consistency reliability for the domain was very high at $\alpha=.87$ for these data. More than 80% of the respondents agree or strongly agree that access to relevant white papers (80.9%), access to conference proceedings (80.5%), access to guest speaker presentation files (85.9%), awareness of new technological developments (94.5%), and dissemination of latest research developments (81.8%) are services that are desirable from a professional association. Respondents were least interested in dissemination of latest vendor solutions and most interested in awareness of new technological developments. It would appear that members are more interested in the broad technologies available as opposed to solutions provided by specific vendors. The composite for the domain was above the central point at $M=3.99$ ($SD=0.51$), indicating that information access and dissemination services are relevant and important to professional association membership.

Professional networking opportunities

domain: This domain includes seven items that relate to how professional associations can provide networking opportunities with other members of the association. Table 10 in Appendix A contains the descriptive statistics for the professional networking opportunities domain. The internal consistency reliability for the domain was high at $\alpha=.83$ for these data. More than 80% of the respondents agree or strongly agree that access to dinners with professionals (85.5%), access to local meetings with relevant speakers (95.5%), and access to regional conferences (84.5%) are desirable activities their ideal professional associations should provide. The most important factor of this domain is the facilitation of dinners with other professionals while the least important

is access to event Really Simple Syndication feeds, which may be an indication that few of respondents are using this technology. The subscale mean for this domain is the highest when compared to the other domains at $M=4.16$ ($SD=0.54$), which reiterates the importance of professional associations hosting professional networking activities.

Communication services domain:

This domain includes five items that relate to how professional associations can create formal and informal communication channels among its members. Appendix A contains the descriptive statistics for the communication services domain. The internal consistency reliability for the domain was high at $\alpha=.82$ for these data. The two most relevant items to the respondents in this domain were access to users groups at $M=4.12$ ($SD=0.65$) and access to special interest groups at $M=4.07$ ($SD=0.68$). These are especially important findings in that AITP does not currently have formal users groups or special interest groups aside from the *Education Special Interest Group* (EDSIG) for members to join. The least relevant item was having access to relevant listservs, indicating that members may not find this form of communication effective. The mean for this subscale is quite high at $M=4.0$ ($SD=0.55$).

Leadership and community service opportunities domain:

This domain has nine relevant items and focuses on various forms of community service and leadership opportunities that may be relevant to professional association members. Table 12 in Appendix A contains the descriptive statistics for the leadership and community service opportunities. The internal consistency reliability for the domain was very high at $\alpha=.89$ for these data. More than 80% of the respondents agreed or strongly agreed that the opportunities to serve as committee or task force chairs (83.6%), to serve on a local board of directors (80.5%), to mentor students (84.5%), to mentor other professionals (81.4%), and to sponsor student chapters (83.2%) were important aspects of their involvement in a AITP. The least relevant was the opportunity to sponsor K-12 programs/events, while opportunities to sponsor student chapters and mentor students were the most important. These finding are consistent with AITP's long history of sup-

porting professionalism in student chapter across the United States. Overall the composite for this domain was particularly high at $M=4.10$ ($SD=0.56$).

Advocacy services and opportunities domain: This domain contains eight items and emphasizes those actions (e.g., federal lobbying) professional associations and members can do to promote the industry. Table 13 in Appendix A contains the descriptive statistics for the advocacy services and opportunities domain. Cronbach's alpha for the advocacy services and opportunities domain was very high at $\alpha=.88$ for these data. The two most relevant options were the opportunities to promote the profession with a mean of $M=4.54$ ($SD=0.61$) and to impact the profession with a mean of $M=4.37$ ($SD=0.65$). The three least relevant areas included to receive guidance on legal matters, to receive professional etiquette tips, and to obtain member voting rights. Overall, the subscale mean was relatively high at $M=4.13$ ($SD=0.54$), suggesting that advocacy opportunities and services are vital to professional associations.

Member discount services domain: This domain contains four items and highlights the various types of discount services that professional associations will make available to its members. Table 14 in Appendix A contains the descriptive statistics for the member discount services domain. Cronbach's alpha for the advocacy services and opportunities domain was high at $\alpha=.83$ for these data. The most relevant item was providing access to special discounts on continuing education courses with a mean of $M=4.30$ ($SD=0.69$), which is consistent with the mission of AITP in providing educational services to its members. The least important service was access to special discounts on financial services. Overall, the subscale mean for this section is lowest when compared to the other domains at $M=3.84$ ($SD=0.70$).

Domains and Relationships

Table 15 in Appendix A summarizes the subscores and internal consistency reliability for each of the domains of interest, in order by rank. As can be gleaned, the most important factor, as measured by the highest subscale average, is the professional networking opportunities domain. Specifically, this is an indication that members of the AITP are most interested in opportunities to

interact with other professionals in a variety of settings (e.g., regional conferences or local meetings with relevant speakers). The least important domain is the member discount services domain which refers to the national discount services to vendors, education courses, group insurance plans or financial services. This domain also has the highest amount of variability among respondents. Notably, all of the Cronbach's alpha or measures of internal consistency reliability are well above the social science standard of 0.7 (Nunnally, 1978). The Cronbach's alpha for the entire scale is very high at $\alpha=.95$.

Table 16 in Appendix A shows the correlations among the domains of importance. As can be seen, all the domains of importance significantly ($p < .01$) and positively correlate. The degree to which the subsection scores correlate is an indication of the cohesiveness of the needs and motivations of AITP members. In particular, the strongest correlations ($r > .6$) were between advocacy services and opportunities, and leadership and community service opportunities ($r = .66$, $p < .01$); and between the communication services, and information access and dissemination services ($r = .62$, $p < .01$). These strong correlations show the innate intersection between each of the activities relevant to professional association membership. Overall, the member discount services domain has the weakest correlations to other domains, while the information access and dissemination service has the strongest.

6. DISCUSSION

This research has resulted in several key findings. First, the results demonstrate the scores from the ICPAS have a high degree of internal consistency reliability for its seven domains of importance. The Cronbach alphas are substantially higher than some deem necessary ($\alpha > .7$) in the social sciences (Nunnally, 1978). Further, the domain scores are all positively and significantly correlated. These measures are evidence that the items are measuring a larger, multidimensional, underlying construct; or what may be the intended measurement, the *needs* and *motivations* of professional association members. Further empirical observation with the instrument, followed by a confirmatory factor analysis will shed light on

whether the seven domain model proposed is an accurate measurement system.

Second, the results have also demonstrated the most important domains to professional AITP members are the *professional networking opportunities; advocacy services and opportunities; and leadership and community service opportunities* provided by the association. The most important domain resulting in professional networking opportunities is consistent with AITP's long history of providing local, regional and national forums for peers to interact. The advocacy services and opportunities domain speaks to the importance of individual members having an opportunity to promote and impact their profession. Interestingly, the third important domain is leadership and community service opportunities. This domain has a strong correlation with the two most important domains. This may support the importance of providing opportunities for leaders to mentor other members including students as well as to promote the profession from within the association using networking opportunities. Equally notable, the least important domain was the membership discount services, which was also least related to the other domains. Perhaps this finding is an indication that AITP member are less interested in their associations spending time on non-professional activities.

Third, across each of the domains of importance, the highest mean item scores ($M > 4.25$) paint an extremely important picture of AITP members' needs and motivations. Table 7 summarizes the items ranked in order. AITP members might best be described as needing services and opportunities for professional growth (awareness, education, networking); and being motivated by opportunities to promote and impact the profession (mentorship and sponsorship of aspiring professionals). These individual items are consistent with the mission of AITP to "provides quality IT [Information Technology] related education, information on relevant IT issues and forums for networking with experienced peers and other IT professionals" (AITP, 2008).

Limitations and Future Work

This was the first major data collection effort for the ICPAS. This paper has only presented the descriptive statistics, measures of internal consistency, and inter-domain corre-

lations. No statistical inferences nor sophisticated validity evidence (e.g., factor analysis) are provided here. An analysis of the inter-item correlations indicated that reliability would not be advantageously increased by the removal of items, and thus none were removed at this point in the instrument development process. Due to the narrow sample size (all AITP members and low response rate), few of the descriptive statistics can be stated with any practical significance to other professional associations.

Table 7. Summary of highest items across domains scores in order.

| Rank | Items | M | SD |
|------|---|------|------|
| 1 | Access to local meetings with relevant speakers | 4.64 | 0.55 |
| 2 | Awareness of new technological developments | 4.55 | 0.59 |
| 3 | To promote the profession | 4.52 | 0.61 |
| 4 | To impact the profession | 4.35 | 0.67 |
| 5 | To receive career enhancing advices | 4.33 | 0.64 |
| 6 | Access to technical training workshops | 4.31 | 0.72 |
| 7 | Access to special discounts on continuing education courses | 4.31 | 0.70 |
| 8 | To sponsor student chapters | 4.28 | 0.71 |
| 9 | Access to dinners with professionals | 4.26 | 0.83 |
| 10 | To mentor students | 4.25 | 0.74 |

The researchers plan to provide validity evidence of the instrument using the sample by conducting an exploratory factor analysis. Revisions to the instrument will be made at this junction. Plans are being made to release the revised instrument on a much larger cross professional population in the subsequent year. However, there is also a concern of whether the instrument is suitable for a wider audience or different professional associations. The unifying variables will be that the professional association members, in some capacity, have distinct needs and motivations for joining and maintaining membership in those associations.

Recommendations

As the professional association measured in this instance was the Association of Information Technology Professionals (AITP), it is important to provide recommendations based on the results to leadership and members of the association to inform decision-making. As AITP is a multi-level professional association, composed of chapters, regions, and a national organization, so are the recommendations provided here. AITP leaderships should be mindful of needs and motivations of their members.

National association recommendations:

To the national association leadership, findings support the increased emphasis on information access and dissemination services. In particular, the organization should aim at re-focusing and shaping the association's dissemination services because respondents indicated access to relevant journals, conference proceedings, and white papers are important. Currently, the association membership only has access to a handful of relevant white papers and the *Information Executive*, which is not a peer-reviewed publication. Respondents were, to a lesser extent, interested in magazines. Respondents show more interest in receiving information on latest developments in their profession; therefore, providing technological forecast reports and studies on technology utilities is recommended. Reshaping the dissemination venues of the association may better serve the membership of the association.

These results also support national leadership spending less time and effort on establishing *non-professional* member discount services. In particular, members were not as interested in discounts in group insurance plans and financial services. However, members were broadly interested in discounts to continuing education opportunities or those that are more closely aligned with the profession and to a lesser extent vendor discounts. Member discount services should be targeted at those services that are relevant to the profession.

Finally, the national association leadership should consider the establishment of additional relevant users groups and special interest groups. Currently, the association only has one formal special interest group, the *Education Special Interest Group*. Encouraging more special interest groups, commit-

tees, and users groups that incorporate new career paths, methods, and technologies at a national level could provide more opportunities for current members to serve in leadership positions and also attract new members.

Regional association recommendations:

The findings showed the respondents were in large support of regional conferences to network with other professionals. Thus, regional conferences should be supported by AITP's nine active regions. These regional conferences also provide an opportunity to address some of the other relevant factors, including training workshops, presentations by relevant speakers, dissemination of technology advances through conference proceedings, and mentoring opportunities with students. As regional conferences are a costly endeavor, regions might consider jointly hosting with other regional conferences to reduce the overall financial burden for both the associations and their members including students.

Chapter association recommendations:

To the chapter association leadership, the findings support the practice of frequent dinner meetings with relevant speakers. Members are interested in broad technological awareness and development, and to a lesser extent, the specific products or solutions of vendors. Chapters can also provide access to "hands on" technical and soft skill training workshops in venues where members can learn skills relevant to their careers and interests. Engaging members in more active learning environments not only provide opportunities for members to network but may also increase local membership retention because of the added services for life-long learning.

Local chapters are excellent candidates to provide mentorship programs between seasoned and new professionals and students in close proximity to each other. Local chapters should continue sponsoring and supporting AITP student chapters. Mentoring programs can address the needs of members to have access to career advice and networking while motivating mentors to remain involved because of the impact they have on the profession.

7. FUTURE WORK

As a part of future work, we plan to analyze survey data using exploratory factor analysis to examine the underlying structure of the instrument for these data. Comparison of results from different population sets can lead to potentially generalizable insights for computing professional associations and their members. We also plan to conduct a similar survey in a much larger cross-professional population with a wider audience of different professional associations.

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Appendix A

Table 8. *Career-enhancing opportunities domain items and descriptive statistics.*

| Items | M | SD | S.D. | D | N | A | S. A. |
|---|----------|-----------|-------------|------------------------|----------|----------|--------------|
| Composite of domain | 4.04 | 0.48 | | % in categories | | | |
| 1. Access to technical training workshops | 4.34 | 0.71 | 0.5 | 0.0 | 10.9 | 42.3 | 45.9 |
| 2. Access to soft skill training workshops | 4.17 | 0.72 | 0.5 | 0.5 | 14.1 | 50.5 | 33.6 |
| 3. Access to full-time employment listings | 3.88 | 0.88 | 1.8 | 2.7 | 26.4 | 43.6 | 25.0 |
| 4. Access to part-time/ internship employment listings | 3.70 | 0.91 | 2.3 | 4.1 | 34.5 | 38.2 | 19.5 |
| 5. Access to licensure or industry certification | 4.11 | 0.79 | 0.5 | 1.8 | 17.7 | 45.5 | 34.1 |
| 6. Access to scholarship awards | 3.79 | 0.88 | 0.9 | 4.1 | 32.7 | 38.6 | 22.7 |
| 7. To receive career enhancing advices | 4.29 | 0.68 | 0.0 | 0.9 | 10.0 | 48.6 | 40.5 |
| 8. To receive professional recognition via achievement awards | 3.88 | 0.87 | 1.4 | 2.3 | 29.5 | 40.0 | 25.9 |
| 9. To use goodwill of association recognition in the career | 4.16 | 0.76 | 0.5 | 1.4 | 15.5 | 46.8 | 35.0 |

M = Mean, *SD* = standard deviation, categories in percentages, *S.D.* = Strongly Disagree, *D.* = Disagree, *N.* = Neither Agree, Nor Disagree, *A.* = Agree, *S.A.* = Strongly Agree.

Table 9. *Information access and dissemination services domain items and descriptive statistics.*

| Items | M | SD | S.D. | D | N | A | S. A. |
|---|----------|-----------|-------------|------------------------|----------|----------|--------------|
| Composite of domain | 3.99 | 0.51 | | % in categories | | | |
| 10. Access to magazines and periodicals | 3.87 | 0.83 | 0.5 | 3.2 | 29.1 | 43.2 | 24.1 |
| 11. Access to relevant white papers | 4.11 | 0.68 | 0.0 | 0.0 | 18.2 | 52.3 | 28.6 |
| 12. Access to journals | 4.01 | 0.73 | 0.0 | 0.5 | 25.0 | 47.7 | 26.8 |
| 13. Access to conference proceedings | 4.10 | 0.70 | 0.0 | 0.5 | 18.6 | 50.9 | 29.5 |
| 14. Access to guest speaker presentation files | 4.22 | 0.67 | 0.0 | 0.5 | 12.7 | 50.9 | 35.0 |
| 15. Awareness of new technological developments | 4.54 | 0.58 | 0.0 | 0.0 | 4.5 | 36.8 | 57.7 |
| 16. Dissemination of latest research developments | 4.18 | 0.71 | 0.0 | 0.5 | 16.4 | 47.3 | 34.5 |
| 17. Dissemination of latest vendor solutions | 3.80 | 0.79 | 0.0 | 4.1 | 30.5 | 45.0 | 19.1 |
| 18. Dissemination of conference call for papers (CFP) | 3.72 | 0.84 | 0.5 | 3.6 | 39.1 | 36.4 | 19.5 |
| 19. Opportunities to promote new products | 3.32 | 0.94 | 2.3 | 14.1 | 44.1 | 26.4 | 11.8 |

M = Mean, *SD* = standard deviation, categories in percentages, *S.D.* = Strongly Disagree, *D.* = Disagree, *N.* = Neither Agree, Nor Disagree, *A.* = Agree, *S.A.* = Strongly Agree.

Table 10. *Professional networking opportunities domain items and descriptive statistics.*

| Items | M | SD | S.D. | D | N | A | S. A. |
|--|----------|-----------|-------------|------------------------|----------|----------|--------------|
| Composite of domain | 4.16 | 0.54 | | % in categories | | | |
| 20. Access to dinners with professionals | 4.28 | 0.79 | 0.5 | 2.3 | 10.9 | 40.5 | 45.0 |
| 21. Access to socials (e.g., cookouts) with professionals | 4.02 | 0.84 | 0.9 | 2.3 | 21.8 | 42.7 | 30.9 |
| 22. Access to local meetings with relevant speakers | 4.64 | 0.54 | 0.0 | 0.0 | 3.2 | 29.1 | 66.4 |
| 23. Access to regional conferences | 4.23 | 0.75 | 0.5 | 1.4 | 11.8 | 45.9 | 38.6 |
| 24. Access to national conferences | 4.22 | 0.79 | 0.0 | 1.4 | 17.7 | 36.8 | 41.8 |
| 25. Access to relevant wikis or blogs related to association | 3.93 | 0.81 | 0.5 | 1.8 | 27.3 | 42.3 | 25.5 |
| 26. Access to event RSS feeds | 3.74 | 0.81 | 0.5 | 1.4 | 40.9 | 35.5 | 19.5 |

M = Mean, *SD* = standard deviation, categories in percentages, S.D. = Strongly Disagree, D. = Disagree, N. = Neither Agree, Nor Disagree, A. = Agree, S.A. = Strongly Agree.

Table 11. *Communication services domain items and descriptive statistics.*

| Items | M | SD | S.D. | D | N | A | S. A. |
|---|----------|-----------|-------------|------------------------|----------|----------|--------------|
| Composite of domain | 4.00 | 0.55 | | % in categories | | | |
| 27. Access to relevant listservs | 3.78 | 0.77 | 0.5 | 0.9 | 36.4 | 42.7 | 18.2 |
| 28. Access to member directories | 4.00 | 0.81 | 0.9 | 3.2 | 17.3 | 50.5 | 26.4 |
| 29. Access to relevant online discussion forums | 4.03 | 0.70 | 0.0 | 0.5 | 21.4 | 50.9 | 25.0 |
| 30. Access to user groups | 4.12 | 0.65 | 0.0 | 0.0 | 15.5 | 55.9 | 26.8 |
| 31. Access to special interest groups | 4.07 | 0.68 | 0.0 | 0.5 | 17.7 | 54.1 | 25.5 |

M = Mean, *SD* = standard deviation, categories in percentages, S.D. = Strongly Disagree, D. = Disagree, N. = Neither Agree, Nor Disagree, A. = Agree, S.A. = Strongly Agree.

Table 12. *Leadership and community service opportunities domain items and descriptive statistics.*

| Items | M | SD | S.D. | D | N | A | S. A. |
|--|----------|-----------|-------------|------------------------|----------|----------|--------------|
| Composite of domain | 4.10 | 0.56 | | % in categories | | | |
| 32. To serve as committee or task force chairs | 4.17 | 0.73 | 0.5 | 0.9 | 13.6 | 50.0 | 33.6 |
| 33. To serve on a local board of directors | 4.20 | 0.80 | 0.9 | 0.5 | 16.8 | 40.5 | 40.0 |
| 34. To fulfill regional leadership positions | 4.07 | 0.77 | 0.5 | 1.8 | 18.2 | 48.6 | 30.0 |
| 35. To fulfill national leadership positions | 4.03 | 0.75 | 0.0 | 1.4 | 22.3 | 46.4 | 27.7 |
| 36. To interact with the general public | 4.03 | 0.81 | 0.9 | 0.5 | 24.1 | 42.7 | 30.9 |
| 37. To mentor students | 4.24 | 0.73 | 0.0 | 1.4 | 12.7 | 45.0 | 39.5 |
| 38. To mentor other professionals | 4.16 | 0.73 | 0.0 | 0.9 | 16.8 | 47.3 | 34.1 |
| 39. To sponsor K-12 programs/events | 3.72 | 0.85 | 0.0 | 4.5 | 39.1 | 34.1 | 20.9 |
| 40. To sponsor student chapters | 4.24 | 0.72 | 0.0 | 0.5 | 15.0 | 43.2 | 40.0 |

M = Mean, *SD* = standard deviation, categories in percentages, S.D. = Strongly Disagree, D. = Disagree, N. = Neither Agree, Nor Disagree, A. = Agree, S.A. = Strongly Agree.

Table 13. *Advocacy services and opportunities domain items and descriptive statistics.*

| Items | M | SD | S.D. | D | N | A | S. A. |
|--|----------|-----------|-------------|----------|------------------------|----------|--------------|
| Composite of domain | 4.13 | 0.54 | | | % in categories | | |
| 41. To promote the profession | 4.54 | 0.61 | 0.0 | 0.0 | 5.9 | 33.6 | 58.6 |
| 42. To access agents promoting concerns of your interest | 4.00 | 0.73 | 0.0 | 1.8 | 20.9 | 50.5 | 24.1 |
| 43. To impact the profession | 4.37 | 0.65 | 0.0 | 0.0 | 9.5 | 43.2 | 45.9 |
| 44. To receive information on latest advocacy efforts | 4.10 | 0.67 | 0.0 | 0.5 | 16.4 | 54.1 | 27.3 |
| 45. To receive guidance on ethical matters | 4.08 | 0.78 | 0.0 | 1.4 | 22.3 | 42.3 | 32.7 |
| 46. To receive guidance on legal matters | 4.00 | 0.79 | 0.0 | 2.7 | 22.7 | 45.5 | 27.7 |
| 47. To receive professional etiquette tips | 4.03 | 0.80 | 0.5 | 1.4 | 22.7 | 43.2 | 30.0 |
| 48. To obtain member voting rights | 4.03 | 0.77 | 0.5 | 0.0 | 24.5 | 44.5 | 28.6 |

M = Mean, *SD* = standard deviation, categories in percentages, S.D. = Strongly Disagree, D. = Disagree, N. = Neither Agree, Nor Disagree, A. = Agree, S.A. = Strongly Agree.

Table 14. *Member discount services domain items and descriptive statistics.*

| Items | M | SD | S.D. | D | N | A | S. A. |
|---|----------|-----------|-------------|----------|------------------------|----------|--------------|
| Composite of domain | 3.84 | 0.70 | | | % in categories | | |
| 49. Access to vendor discounts | 4.06 | 0.80 | 0.5 | 1.4 | 22.3 | 42.7 | 32.3 |
| 50. Access to special discounts on continuing education courses | 4.30 | 0.69 | 0.0 | 0.0 | 12.7 | 43.6 | 42.3 |
| 51. Access to special discounts on group insurance plans | 3.54 | 0.97 | 3.2 | 6.4 | 40.9 | 30.9 | 17.7 |
| 52. Access to special discounts on financial services | 3.45 | 0.93 | 3.2 | 6.4 | 45.5 | 28.6 | 14.1 |

M = Mean, *SD* = standard deviation, categories in percentages, S.D. = Strongly Disagree, D. = Disagree, N. = Neither Agree, Nor Disagree, A. = Agree, S.A. = Strongly Agree.

Table 15. *Summary of domain scores and reliability in order.*

| Rank | Domains of Importance | M | SD | α |
|-------------|--|----------|-----------|----------------------------|
| 1 | Professional networking opportunities | 4.16 | 0.54 | 0.83 |
| 2 | Advocacy services and opportunities | 4.13 | 0.54 | 0.88 |
| 3 | Leadership and community service opportunities | 4.10 | 0.56 | 0.89 |
| 4 | Career enhancing opportunities | 4.04 | 0.48 | 0.79 |
| 5 | Communication services | 4.00 | 0.55 | 0.82 |
| 6 | Information access and dissemination services | 3.99 | 0.51 | 0.87 |
| 7 | Member discount services | 3.84 | 0.70 | 0.83 |

α =Cronbach's alpha

Table 16. *Correlations among domains of importance.*

| Domains of Importance | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|----------|----------|----------|----------|----------|----------|----------|
| 1. Career enhancing opportunities | 1 | | | | | | |
| 2. Information access and dissemination services | .44* | 1 | | | | | |
| 3. Professional networking opportunities | .46* | .54* | 1 | | | | |
| 4. Communication services | .39* | .62* | .57* | 1 | | | |
| 5. Leadership and community service opportunities | .48* | .45* | .59* | .36* | 1 | | |
| 6. Advocacy services and opportunities | .50* | .53* | .53* | .47* | .66* | 1 | |
| 7. Member discount services | .41* | .38* | .23* | .37* | .25* | .29* | 1 |

*= $p < .01$

Appendix B
Ideal Computing Professional Association Survey

Please provide the following demographic information.

Select your gender.

- Male
- Female

Select the range for your age.

- 0-25
- 26-35
- 36-45
- 46-55
- 56-65
- > 65

Indicate the group with which you identify: {select one or more}

- American Indian/Alaska Native
- Asian
- Black/African American
- Hawaiian/Other Pacific Islander
- Hispanic/Latino
- White
- Other

Select the highest degree earned.

- High School
- Associates
- Bachelors
- Masters
- Specialist
- Doctorate

Select a range that best reflects your current income:

- N/A
- 0 – \$30,000
- \$30,001 - \$50,000
- \$50,001 - \$75,000
- \$75,001 - \$100,000
- \$100,001 - \$150,000
- > \$150,000

Indicate your job title. _____

Indicate the sector of the economy in which you are employed.

- Public
- Private
- Currently unemployed

Indicate whether you hold any of the following certifications:

- Associate Computing Professional (ACP)
- Certified Computing Professional (CCP)
- Certified Data Management Professional (CDMP)
- Certified Business Intelligence Professional (CBIP)
- Certified Information Technology Compliance Professional (CITCP)
- Information Systems Analyst (ISA)
- Associate IT Consultant (AITC)
- Information Systems Professional (ISP)

How many years have you been a member of AITP (formerly DPMA)?

- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 30
- 31 - 35
- 36 - 40
- > 40

Indicate your current AITP membership classification:

- Professional
- Interim
- Student
- Inactive

Indicate whether you are an active member of the following professional associations:

- Association for Information Technology Professionals (AITP)
- Association of Computing Machinery (ACM)
- Data Management Association (DAMA)
- Institute of Electrical and Electronic Engineers (IEEE)
- Association of Information Systems (AIS)
- Canadian Information Processing Society (CIPS)
- Business Technology Association (BTA)
- Independent Computer Consultants Association (ICCA)

If you selected other, please specify: _____

Indicate the estimated number of employees working at your place of work:

- N/A
- 0-25
- 26-150
- 151-500
- 501-1000
- 1000-25,000
- 25,001-50,000
- >50,000

Indicate the number of hours per week, on average, you are willing to devote to a professional association:

- None
- 0-1
- 2-4
- 4-6
- > 6

Indicate the amount per annum that you are willing to pay for a professional association membership:

- None
- 0-\$50
- \$51-\$100
- \$101-\$150
- \$151-\$200
- \$201-\$250
- \$250-\$300
- > \$300

Indicate whether your employer currently makes a contribution to your membership in a professional association:

- None
- Partial reimbursement or payment
- Full reimbursement or payment

Select the state in which you reside. If currently living outside the US, please select other and enter your state or country.

[Select One]

If you selected other, please specify: _____

Select the response that best reflects the extent to which you feel membership in a professional association should provide these **career enhancing opportunities** to you.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to technical training workshops | <input type="checkbox"/> |
| Access to soft skill training workshops | <input type="checkbox"/> |
| Access to full-time employment listings | <input type="checkbox"/> |
| Access to part-time/ internship employment listings | <input type="checkbox"/> |
| Access to licensure or industry certification | <input type="checkbox"/> |
| Access to scholarship awards | <input type="checkbox"/> |
| To receive career enhancing advices | <input type="checkbox"/> |
| To receive professional recognition via achievement awards | <input type="checkbox"/> |
| To use goodwill of association recognition in the career | <input type="checkbox"/> |

Select the response that best reflects the extent to which you feel membership in a professional association should provide these **information access and dissemination services** to you.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to magazines and periodicals | <input type="checkbox"/> |
| Access to relevant white papers | <input type="checkbox"/> |
| Access to journals | <input type="checkbox"/> |
| Access to conference proceedings | <input type="checkbox"/> |
| Access to guest speaker presentation files | <input type="checkbox"/> |
| Awareness of new technological developments | <input type="checkbox"/> |
| Dissemination of latest research developments | <input type="checkbox"/> |
| Dissemination of latest vendor solutions | <input type="checkbox"/> |
| Dissemination of conference call for papers (CFP) | <input type="checkbox"/> |
| Opportunities to promote new products | <input type="checkbox"/> |

Select the response that best reflects the extent to which you feel membership in a professional association should provide these **professional networking opportunities** to you.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to dinners with professionals | <input type="checkbox"/> |
| Access to socials (e.g., cookouts) with professionals | <input type="checkbox"/> |
| Access to local meetings with relevant speakers | <input type="checkbox"/> |
| Access to regional conferences | <input type="checkbox"/> |
| Access to national conferences | <input type="checkbox"/> |
| Access to relevant wikis or blogs related to association | <input type="checkbox"/> |
| Access to event RSS feeds | <input type="checkbox"/> |

Select the response that best reflects the extent to which you feel membership in a professional association should provide these **communication services** to you.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to relevant listservs | <input type="checkbox"/> |
| Access to member directories | <input type="checkbox"/> |
| Access to relevant online discussion forums | <input type="checkbox"/> |
| Access to user groups | <input type="checkbox"/> |
| Access to special interest groups | <input type="checkbox"/> |

Select the response that best reflects the extent to which you feel membership in a professional association should provide these **leadership and community service opportunities** to you.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| To serve as committee or task force chairs | <input type="checkbox"/> |
| To serve on a local board of directors | <input type="checkbox"/> |
| To fulfill regional leadership positions | <input type="checkbox"/> |
| To fulfill national leadership positions | <input type="checkbox"/> |
| To interact with the general public | <input type="checkbox"/> |
| To mentor students | <input type="checkbox"/> |
| To mentor other professionals | <input type="checkbox"/> |
| To sponsor K-12 programs/ events | <input type="checkbox"/> |
| To sponsor student chapters | <input type="checkbox"/> |

Select the response that best reflects the extent to which you feel membership in a professional association should provide these **advocacy services and opportunities** to you.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| To promote the profession | <input type="checkbox"/> |
| To access agents promoting concerns of your interest | <input type="checkbox"/> |
| To impact the profession | <input type="checkbox"/> |
| To receive information on latest advocacy efforts | <input type="checkbox"/> |
| To receive guidance on ethical matters | <input type="checkbox"/> |
| To receive guidance on legal matters | <input type="checkbox"/> |
| To receive professional etiquette tips | <input type="checkbox"/> |
| To obtain member voting rights | <input type="checkbox"/> |

Select the response that best reflects the extent to which you feel membership in a professional association should provide these **member discount services** to you.

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to vendor discounts | <input type="checkbox"/> |
| Access to special discounts on continuing education courses | <input type="checkbox"/> |
| Access to special discounts on group insurance plans | <input type="checkbox"/> |
| Access to special discounts on financial services | <input type="checkbox"/> |

Please describe any other factors that persuade you to become a member in professional associations.

Please describe any factors that deter you from joining professional associations.