American College of Medical Informatics: Strategic Plan (2020-2025)

Executive Summary

This strategic plan outlines a set of strategies and tactics that are intended to guide the activities of the American College of Medical Informatics (ACMI) over the next five years. It is the result of year-long, member-driven, and multi-phase process, guided by the **objectives** of:

- Ensuring the continued prominence and growth of ACMI;
- Enhancing the impact and visibility of ACMI as a source of thought-leadership;
- Providing value to the elected fellows of the college;
- Improving the financial standing and sustainability of the college; and
- Increasing synergies with the American Medical Informatics Association (AMIA)

The strategies identified as a result of the aforementioned process were informed by a set of **foundational principles** that were established by the committee charged with developing this plan, which included:

- Maintaining the core mission, vision, and standing of the College;
- Adapting to the changing landscape of Biomedical Informatics;
- Growing the community of active and engaged fellows;
- Providing thought leadership; and
- Working synergistically with AMIA

Based on these principles, the plan envisions <u>five key strategies</u> that the college should pursue over the next five years, as are summarized below and described in greater detail in this document (including specific tactic intended to support and enable such strategies):

- Strategy 1: Expand participation in ACMI convening activities
- **Strategy 2:** Enhance the external visibility of ACMI and establish a "brand" as the source of thought leadership in the field of Biomedical Informatics
- **Strategy 3:** Systematize criteria for ACMI fellowship, and create programs to encourage engagement with the college by newly elected and established fellows
- **Strategy 4:** Establish a comprehensive financial plan for ACMI, focusing on long-term sustainability and the harmonization of the goals/activities of the college with accessible levels of financial participation by elected fellows.
- **Strategy 5:** Track, evaluate, and engage in continuous improvement and optimization as it relates to the strategies and tactics in this plan

Finally, building upon such a strategic framework, the plan also envisions a revised **mission statement** for the college that is consistent with such proposed foci, as follows:

Leading with Distinction, Guiding the Biomedical and Health Informatics Community

Introduction

This document summarizes a set of strategies and tactics that comprise a 5-year strategic plan for the American College of Medical Informatics (ACMI). This plan is the result of a year-long, multi-phased planning process, involving input from a broad cross-section of the elected fellows who comprise ACMI. At a high level, the planning process was motivated by five key objectives, as follows:

- 1) Ensuring the continued prominence and growth of ACMI as the preeminent body of scientific leaders in the Biomedical Informatics community;
- 2) Enhancing the impact and visibility of ACMI's role as a source of thought-leadership in the field of Biomedical Informatics;
- 3) **Providing value to elected fellows of the college**, such that those individuals will continue to engage with ACMI in a sustained and meaningful manner;
- 4) Improving the financial standing and sustainability of the college; and
- 5) Achieving greater synergy with the American Medical Informatics Association (AMIA), consistent with the relationship between the two organizations.

Background¹

The American College of Medical Informatics (ACMI) is a college of elected fellows who have made significant and sustained contributions to the field of biomedical informatics. Initially incorporated in 1984, the organization later dissolved its separate corporate status to merge with the American Association for Medical Systems and Informatics (AAMSI) and the Symposium on Computer Applications in Medical Care (SCAMC) when the American Medical Informatics Association was formed in 1989. The College now exists as an elected body of fellows within AMIA, with its own bylaws and regulations that guide the organization, its activities, and its relationship with the parent organization. The College is fiscally self-sufficient, and its officers prepare and submit its financial plan annually for approval by the AMIA Board of Directors.

ACMI Fellows are eligible to use the designation FACMI, indicating they are an elected Fellow of ACMI. Deserving informaticians from all countries are eligible for election to fellowship.

The College was initially created using an election process that assured that the founding fellows would be nominated and voted upon by their peers. Five individuals, Marsden S. Blois, Morris F. Collen, Donald A.B. Lindberg, Thomas E. Piemme, and Edward H. Shortliffe, prepared a ballot of over 100 names of leaders in the field and sent the ballot to all listed individuals. Nominees were asked to vote for 50 colleagues to become the founding fellows, and in this way the initial set of 52 fellows was selected (three individuals were tied for the fiftieth place). The founding fellows then incorporated, elected officers, and initiated a process through which the existing fellows nominate and elect new fellows. The current number of fellows elected from the US and abroad is over 400, with approximately fifteen to twenty new fellows elected each year.

Strategic Planning Process

In order to develop this strategic plan, and as was noted previously, a multi-phased approach was used, organized around three critical questions, as follows:

¹ Source: <u>https://www.amia.org/acmi-fellowship</u>

- Question 1: What topics should the ACMI strategic plan address?
- **Question 2:** What are the possible "formulations" of the topics identified via Question 1 (i.e., the ways in which we can answer the topics identified in Question 1 and what efforts would be needed to do so)?
- **Question 3:** What are the specific outcomes that should be targeted, given Questions 1-2?

The approach to soliciting responses to these questions and their contributions to the ensuing strategic plan are shown in **Figure 1** below:



Figure 1: Overview of strategic planning process, showing mechanisms for soliciting responses to critical questions, as well as the contributions of these mechanisms to the ensuing strategic plan. Of note, the solicitation of input from ACMI membership was iterative, involving a survey, and multiple in-person discussions at both the AMIA Annual Symposium and ACMI Winter Symposium.

The strategic planning process was undertaken by a group of ACMI Fellows, drawn from both the college's Executive Committee (EC) as well as the general membership, as follows:

- Philip Payne (Washington University in St. Louis)*
- Elmer Bernstam (University of Texas Health Sciences Center, Houston)
- Jim Cimino (University of Alabama, Birmingham)
- Christopher Chute (Johns Hopkins University)
- Jacqueline Merrill (Columbia University)
- Bill Tierney (The University of Texas, Austin)
- Jessie Tenenbaum (Duke University)
- Dean Sittig (University of Texas Health Sciences Center, Houston)
- Mollie Cummins (University of Utah)

*strategic planning committee chair, ACMI secretary

In the following sections, the specific methods and outcomes therein for each of the preceding phases is described in detail.

Phase 1: Identification of Driving Questions

In order to address Question 1, and as was introduced above, the strategic planning committee conducted a series of virtual meetings, during which a corpora of such questions were identified and aggregated via an iterative process.

Examples of the types of questions identified by the planning committee included the following:

- What is ACMI's "raison d'être" and what activities will enable it to achieve that purpose?
- Where can ACMI fill a void in leadership and direction for academic biomedical informatics?
- How can ACMI support members beyond just recognizing them by electing them to ACMI? What professional development opportunities are available or possible?
- In what forum(s) can ACMI have impact on the field of biomedical informatics?
- How should ACMI's leaders and the structure and function of its executive committee to support enhancing either its inward or outward facing activities?
- What is the value of ACMI?
- Could we advertise ACMI as a source of thought leadership (e.g., convening workshops, writing position papers, testifying before congress) to EHR vendors, government organizations, or healthcare organizations?
- How should ACMI articulate with AMIA for thought leadership in policy and research?

When the complete corpus of questions was analyzed using a grounded theory based, thematic analysis, the following high-level questions emerged:

- 1) What is ACMI's purpose?
- 2) How does ACMI provide value to elected fellows?
- 3) How does ACMI provide value to the broader academic Biomedical Informatics community?
- 4) What should ACMI's relationship with AMIA be?
- 5) How can ACMI best convene its fellows to achieve its goals?

Phase 2: Survey of Elected Fellows

Building upon the high-level questions identified in Phase 1, a survey was designed, for communication to all elected fellows of ACMI. This survey included both demographic questions, as well as questions relevant to future strategic directions for the college, delivered using a combination of either structured or unstructured response categories depending on the nature of each question, as follows:

- Demographic questions:
 - In what year where you inducted into ACMI?
- Strategic questions:
 - \circ $\;$ What do you believe the primary purpose of ACMI is?

- Should ACMI's primary purpose evolve over the next five years?
- Which of the following ACMI activities have you participated in at least once over the past three years?
- How valuable do you find (current) ACMI activities?
- Are there other (current) ACMI activities that you find valuable?
- Which types of (new) activities would you find valuable if they were made available to you by ACMI?
- Are there other (new) ACMI activities that you would find valuable?
- Should ACMI provide expanded opportunities for non-fellows to participate in ACMI events (e.g., as invited guests, speakers, etc.)?
- o Is the number of ACMI fellows elected on an annual basis appropriate?
- Should ACMI members be required to maintain their membership (i.e., pay dues) in order to retain their status as fellows of ACMI?
- Should ACMI dues or other revenues be used to support activities of the college beyond convening activities, such as the development of white-papers or reports?
- Do you have any other comments or suggestions regarding the future strategic priorities of ACMI?

Full responses to these survey questions are provided in **Appendix A** of this document.

Subsequently, members of the strategic planning committee reviewed the results of the survey, and summarized them as a SWOT analysis, as is shown in **Table 1 below:**

| Table 1: | Summary | of results | of survey | of elected fellows |
|----------|---------|------------|-----------|--------------------|
|----------|---------|------------|-----------|--------------------|

| Strengths: | Weaknesses: |
|---|--|
| High rate of participation by newer | Low rate of participation by more |
| fellows in survey Clarity of understanding by fellows as | established fellows in survey Low rate of participation in ACMI |
| to current purpose of ACMI Recognition programs (fellowship, | Winter Symposium Divergent thinking regarding need for |
| Collen award) Breadth and depth of expertise of | or types of change in ACMI's purpose Selectivity of nomination/election |
| current fellows Convening activities at AMIA Annual | process for new fellows Mechanisms for engaging non-fellows |
| Symposium | in ACMI events Relationship with AMIA |

| Opportunities: | Threats: |
|--|--|
| Generation of scholarly products or equivalent that demonstrate thought leadership by ACMI Creation of more accessible convening activities (location, cost) Establishment of a more synergistic relationship with AMIA Establishment of mentoring programs that are distinct from, but complementary to, those that exist with the AMIA organization, and that leverage the unique knowledge of ACMI Fellows. Increased "outward" focus Fundraising and industry relationships | Financial sustainability Engagement of newer fellows in convening and other activities Resistance to change Desire for strategic, operational, and financial independence from AMIA Ability to support new programming (see opportunities) |

Phase 3: Development of Outcomes

Informed by the outcomes of Phases 1 and 2, the members of the strategic planning group developed a set of targeted outcomes that were considered to be consistent with the objectives of the planning process, and the input received from the elected fellows of the college. These desired outcomes and the anticipated means of measuring them are summarized below:

- Ensure the long-term financial sustainability of ACMI in order to support its members and new initiatives
 - Number of active and dues paying ACMI fellows
 - New resources resulting from fundraising programs intended to augment member dues
 - Clarity of understanding of the financial needs and objectives of the college by the general membership
- Increase attendance at and engagement in ACMI events
 - Number of new fellows (elected in past 5 years) participating in such events
 - Number of potential fellows identified and engaged so as to improve the overall nomination and election process
 - Identification of alternative locations or meeting formats that provide for greater accessibility and lower cost
- Increased external visibility
 - Citation rate for ACMI white papers in the peer reviewed literature
 - Earned media activity levels (e.g., mentions or attributions found in relevant non-peer-reviewed media as a result of ACMI's recognition as a source of thought leadership)

- Expand the production of scholarly works and/or equivalent products that demonstrate ACMI's thought leadership in the field of Biomedical and Health Informatics
 - Reduction in the cost and complexity of planning these activities
 - Increased in the number of such activities that are coordinated with other, relevant national entities, such as the ONC and/or National Academies
- Establish a formal mentoring program within ACMI, with a particular emphasis on engaging senior or more established fellows in such programming.
 - Numbers and types of mentoring relationships established and maintained as a result of new programs focusing on this area.
- Establish community-accepted metrics for assessing the qualifications and numbers of new fellows elected on an annual basis
 - Consistency of size and qualifications of annual candidate cohorts
- Maintain and recognize opportunities for informal networking and interaction amongst fellows in a manner that is complementary to the preceding objectives/outcomes
 - Qualitative assessments of fellow satisfaction with networking opportunities associated with ACMI convening activities

Strategies and Tactics

Again, informed by the outcomes of all of the preceding phases, the members of the strategic planning group developed a set of strategies and tactics to help guide the activities of the college over the next five years. These strategies and tactics were guided by five foundational principles that were identified and refined by the group, as follows:

- 1) Maintain the core mission, vision, and standing of the College
- 2) Adapt to the changing landscape of Biomedical Informatics
- 3) Grow the community of active and engaged fellows
- 4) Provide thought leadership
- 5) Work synergistically with AMIA

These strategies and the underlying tactics were then presented and subject to polling, discussion, and refinement by attendees at the 2019 ACMI Winter Symposium. Those refined strategies and the tactics to be used in their pursuit, consistent with the preceding foundational principles, are summarized in **Table 2** below:

| Strategy | Underlying Tactics |
|-----------------------|---|
| Strategy 1: Expand | • Tactic 1.1: Create an alternating annual symposium |
| participation in ACMI | schedule consisting of: 1) thematically organized |
| convening activities | workshops (producing output that demonstrates the |
| | college's thought leadership); and 2) networking events |

Table 2: Overview of strategies and underlying tactics, intended to inform the activities of ACMI over the next five years

| | (holping to build a second with of a section sector) |
|--|--|
| Strategy 2: Enhance the external visibility of ACMI and establish a "brand" as the | (helping to build a community-of-practice consisting of ACMI fellows). Tactic 1.2: Establish a program whereby individuals who have reached the minimum standards for consideration to be elected into the college can apply to present at and participate in ACMI convening events. Such participation by potential fellows would provide a basis for assessing their qualifications for nomination and election to fellowship. Such a program would be highly selective and nature and emphasize convening activities that co-occur with other AMIA events. Tactic 1.3: Work in coordination with AMIA to identify opportunities to achieve greater participation in ACMI convening events as a result of the appropriate selection of locations and formats for both standalone ACMI convening events, as well as those events that co-occur with AMIA convening events. Such efforts would include diversifying the types and background of participating individuals to represent the full scope of the Biomedical and Health Informatics community. Tactic 2.1: Create a mechanism for convening "task forces", either as the result of deliberation by ACMI fellows, or requests made by AMIA leadership (and that |
| source of thought leadership in the field of Biomedical Informatics | are synergistic with, but do not replicate activities being undertaken by AMIA), that can produce articles, reports, or other artifacts demonstrating ACMI's position as the source of thought leadership for the field of Biomedical Informatics. In order to demonstrate this mechanism, a group of fellows (at multiple levels of experience and seniority), should be convened to form a <i>Thought Leadership Task Force</i> that would be charged with identifying opportunities to advance Biomedical and Health Informatics that are uniquely aligned with the mission and composition of ACMI. Tactic 2.2: Create a similar mechanism for external groups to "commission" articles, reports, or other artifacts, responding to needs for thought leadership and that are in alignment with the mission and vision of ACMI. Tactic 2.3: Coordinate with AMIA-affiliated journals (JAMIA, JAMIA Open, ACI) to enable rapid and timely distribution of the products associated with tactics 1 and 2. |

| | • Tactic 2.4: Produce and maintain a comprehensive, |
|--|---|
| | modern, and engaging digital platform for ACMI, highlighting and promoting all of the strategies and tactics described in this plan. Ideally, such a tactic will leverage the knowledge of ACMI fellows with relevant expertise. |
| Strategy 3: Systematize criteria for ACMI fellowship, and create programs to encourage engagement with the college by newly elected and established fellows | Tactic 3.1: Commission a "task force" under the auspices of the ACMI Executive Committee to examine and make recommendations for changes to current ACMI fellowship nomination criteria and processes, in order to ensure that they are in alignment with: 1) current trends and measures of success in the field of Biomedical Informatics; 2) efforts to increase the diversity of future classes of fellows; and 3) fair and well-understood "thresholds" that help to ensure that the process of electing new fellows clearly recognizes people who have made sustained and measurable contributions to the field while also being consistent and well understood by potential fellows. Tactic 3.2: Establish a fellow-to-fellow mentoring program, both for newly elected fellows, as well as established fellows, focusing on supporting career and leadership development at all stages. Tactic 3.3: Create a new fellow "on-boarding" process that helps to orient newly elected fellows to the full spectrum of ACMI activities and convening events |
| Strategy 4: Establish a comprehensive financial plan for ACMI, focusing on long- term sustainability and the harmonization of the goals/activities of the college with accessible levels of financial participation by elected fellows. | Tactic 4.1: Implement a tiered membership dues model, commensurate with member status and participation in college affiliated events/activities. Tactic 4.2: Establish a financial reserve equivalent to at least one and ideally two years of the college's operating budget. Tactic 4.3: Working in coordination with AMIA, implement a fundraising program intended to solicit sponsors for ACMI convening events. Tactic 4.4: Working in coordination with AMIA, Identify and pursue opportunities for ACMI to obtain grant funding from federal agencies and/or foundations in support of thought leadership activities and the production of resulting artifacts. Tactic 4.5: Identify and engage in opportunities to achieve increased economies-of-scale and reduced costs through continued coordination of ACMI convening events with AMIA events. |

| Strategy 5: Track, evaluate, and engage in continuous improvement and optimization as it relates to the strategies | • Tactic 5.1: Create a standing sub-committee of the ACMI Executive Committee, charged with tracking and evaluating all task forces and subcommittees as well as process and outcome metrics associated with the |
|--|--|
| and tactics in this plan | strategies and tactics in this plan. Tactic 5.2: Charge the standing-subcommittee created via Tactic 5.1 to report upon progress towards the satisfaction of strategic plan objectives on an annual basis, with both a formal report and an in-person presentation at the ACMI Winter Symposium. Tactic 5.3: Conduct a formal review of the outcomes of this plan during the fifth year (engaging external experts), and commission a revised 5-year plan based upon the outcomes of that review (e.g., creating a reoccurring strategic planning process for the college) |

Refining the Mission of ACMI

Simultaneous to the activities at the 2019 ACMI Winter Symposium relative to the finalization of the strategies and tactics that comprise the strategic plan, those same fellows were also asked to provide qualitative feedback concerning the words that they would use to describe the mission of ACMI, with the intent of using such feedback to help inform a refinement of the college's mission statement. The outcomes of this process (shown in **Appendix B**) were then further reviewed by the ACMI Executive Committee, resulting in the formulation of the following refined mission statement for the college. This mission statement is intended to both reflect the historical basis of the college's formation, as well as the emerging trends illuminated via this strategic planning process:

Leading with Distinction, Guiding the Biomedical and Health Informatics Community

Conclusions

As was noted at the beginning of this document, the intent of the strategic planning process described therein were five-fold, namely:

- Ensuring the continued prominence and growth of ACMI
- Enhancing the impact and visibility of ACMI's role as a source of thought-leadership
- Providing value to the elected fellows of the college
- Improving the financial standing and sustainability of the college
- Achieving greater synergy with the American Medical Informatics Association (AMIA)

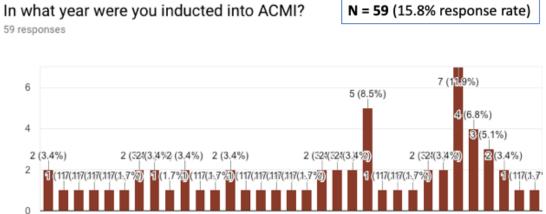
These objectives are manifested in the five strategic objectives developed via the strategic planning process undertaken by the leadership and fellows of the college. *These objectives can and should serve as a guidepost for the decisions of the ACMI Executive Committee and general*

membership over the coming five years. The objectives will motivate and shape the activities needed to ensure that ACMI can continue to lead and guide with distinction the broad Biomedical Informatics community.

Appendix A: Survey Results

Question 1

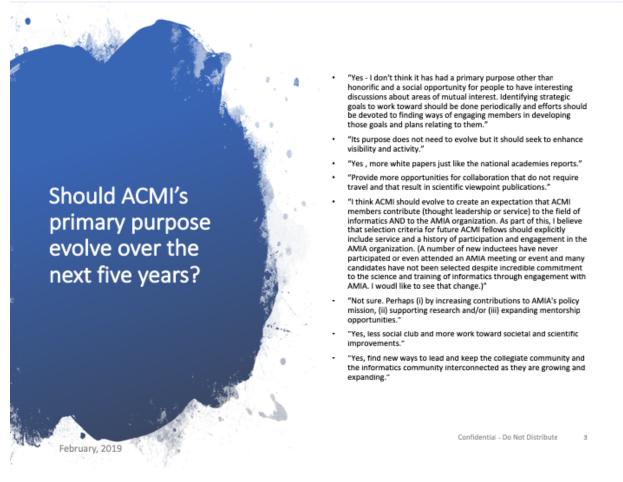
Survey Respondents



1984 1988 1991 1994 1997 2001 2005 2008 2011 2014 2017

February, 2019



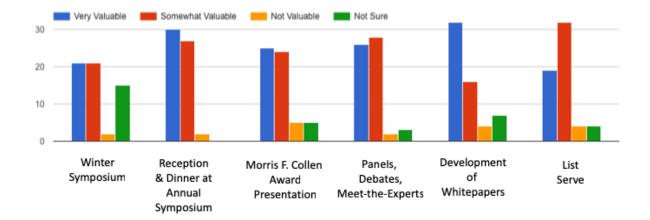


Which of the following ACMI activities have you participated in at least once over the past three years? (top 5)

February, 2019

- Reception and/or dinner at AMIA Annual Symposium (94.9%)
- Morris F. Collen award presentation (84.7%)
- Panels, debates, and/or meetthe-expert sessions (62.7%)
- Annual Winter Symposium (59.3%)
- Development of white papers, reports, and other scholarly products (28.8%)





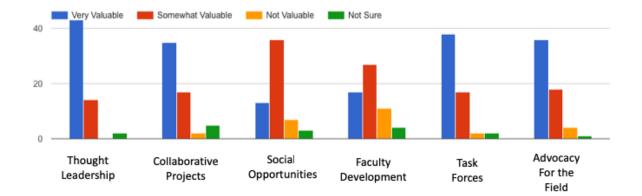
February, 2019

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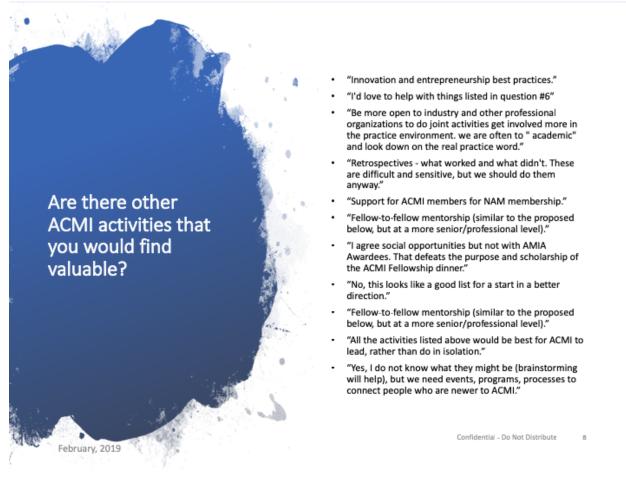
Which of the following activities would you find valuable if they were made available to you by ACMI?



February, 2019

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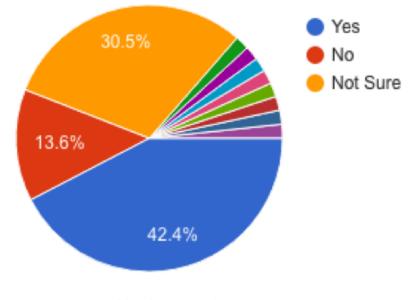
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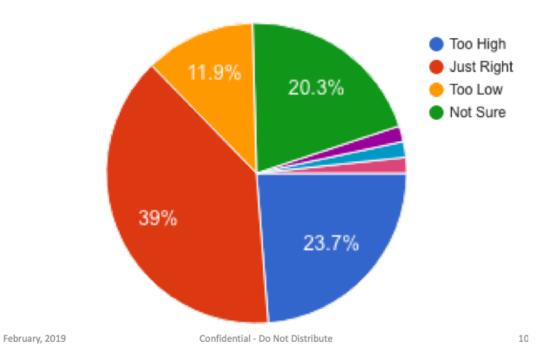
Question 9

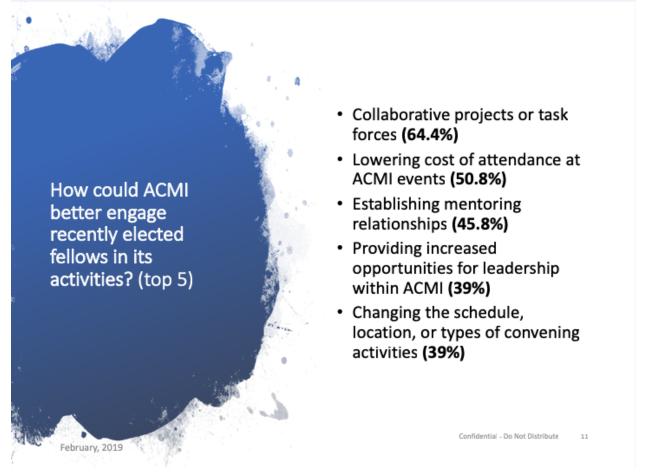
Should ACMI provide expanded opportunities for non-fellows to participate in ACMI events (e.g., as invited guests, speakers, etc.)?



February, 2019

Is the number of ACMI fellows elected on an annual basis?



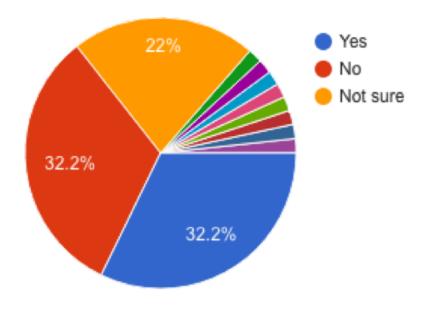


Which of the following constituencies should ACMI focus its activities on in order to advance the field of informatics? (top 5)

February, 2019

- "All of the above" (44.1%)
- Broader Biomedical and Health Informatics community (40.7%)
- Fellows and the AMIA community (37.7%)
- Broader Biomedical community (18.6%)
- Elected fellows only (13.6%)

Should ACMI members be required to maintain their membership (i.e., pay dues) in order to retain their status as fellows of ACMI?

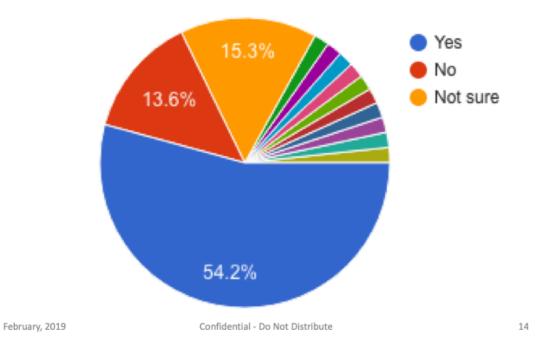


February, 2019

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13

Should ACMI dues or other revenues be used to support activities of the college beyond convening activities, such as the development of white-papers or reports?





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Appendix B: Responses Concerning Mission of ACMI



February, 2019