Cyber-investigation Analysis Standard Expression (CASE) Open Source Community Bylaws

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Change Register:

1. Added Presiding Director and Community Secretary names at the end of the document after initial Governance Committee election. Date of change: 22 January 2019.

Article I: Name

The name of the organization shall be the Cyber-investigation Analysis Standard Expression (CASE) Open Source Community. The short name "CASE Community" shall be used synonymously.

In the remainder of this document, "Community" refers to the CASE Community.

Article II: Purpose

The Community is organized with the purpose of developing and promoting the adoption of the Cyber-investigation Analysis Standard Expression (CASE) as a Community-developed specification language. The primary motivation for CASE is interoperability that will advance the efficient and accurate exchange of cyber-investigation information between tools and organizations in order to lessen the analytic burden of government and non-government cyber investigators. CASE is intended to serve the needs of a broad range of cyber-investigation domains, including digital forensic science, incident response, counter-terrorism, criminal justice, forensic intelligence, and situational awareness. CASE aligns with and extends the Unified Cyber Ontology (UCO).

Article III: Individual Members

3.1 Section A: Eligibility

An individual may join the Community by submitting a completed membership request form to the CASE Community Governance Committee for approval.

3.2 Section B: Dues

A membership fee schedule may be implemented by the Governance Committee as described in Article V, Section G.

3.3 Section C: Member Classes

There are four classes of members based on the type of organization with which the member is affiliated. Qualifications for Member Class affiliations are described below. Affiliation is by employment, except in the case of independent contributors, who are assigned an affiliation as described below. Every member is affiliated with a member class. In the case that a member has multiple employers of different types, the applicant may

- self-identify, and the final determination shall be made at the time of membership approval.

 Class affiliation changes when a member's employment changes.
- (a) Industry: Members affiliated with the Industry class must be employed by a for-profit company that has a business license recognized by the local government of the geopolitical region in which they are headquartered. The company must sell a product (*i.e.*, good or service) to the digital investigation community for the collection, analysis, and dissemination of trace cyber evidence. For-profit companies that open-source their digital investigations product will belong to the Industry class.
- (b) Academia: Members affiliated with the Academia class must be employed by an institution of higher learning or must be independent (*i.e.*, otherwise unaffiliated) contributors. The academic institution may be a for-profit or not-for-profit institution of higher learning. The academic institution must have at least one regional accreditation from the country in which it is headquartered. Professional staff of the academic institution must have published an article in a peer-reviewed journal or conference proceedings on the general topic of digital investigations within the previous two years of Community member affiliation. Independent digital investigation researchers and tool developers shall be affiliated with the Academia class following review and approval by the Presiding Director regarding the independent status of the member.
- (c) Government: Members affiliated with the Government class must be employed by a local, tribal, state or regional, national, or international governmental body (e.g., federal investigative agency, national standards agency, INTERPOL, government computer forensics laboratory, district attorney's office).
- (d) Non-Profit: Members affiliated with the Non-Profit class must be employed by an organization that is formally established as a non-profit, not-for-profit, or non-governmental organization, or a similarly chartered entity that works in the public interest by engagement in a digital investigation mission, advocacy for digital investigation standards, or releasing digital investigation tools to the public.

3.4 Section D: Member Status

(a) Active Member: An **active member** shall be a member who has contributed to the CASE Community within a period specified by the Governance Committee. The Governance Committee shall determine the nature and extent of contributions required for active member status. Examples of contributions are: service on the Governance Committee or Ontology Committee, proposal of change requests to the Ontology Committee, attendance at two or more CASE developer meetings, and publicly advocating for the CASE specification language (including presentation of the ontology at a professional meeting, or actions to establish the CASE Community organization). The Secretary will publish the list of names of active members on the Community website as directed by the Governance Committee. The list of active members shall be re-evaluated on an ongoing basis at intervals determined by the Governance Committee and at least once annually prior to the opening of nominations for elected Directors.

The initial determination of active members shall include any person who has contributed to the CASE Community since January 1, 2017, in one or more of the following ways: (i) ontology change contributions; (ii) attendance at two or more CASE developer meetings; or (iii) publicly advocating for the CASE specification language in a professional meeting or online forum.

- (b) Emeritus Member: An **emeritus member** is a person who formerly served in one or more Community officer roles for a total of at least three years, who is no longer an active member, and who has retired from their affiliated organization. Emeritus members shall not participate in Community voting. An emeritus member may be restored to active membership at the determination of the Governance Committee.
- (c) Observers: An **observer** is a member who has not contributed to the Community within the period specified by the Governance Committee when a determination of active members is made. Observers shall not participate in Community voting, including elections for the Governance Committee Directors. Observers may request a transfer to active

member status if they make contributions to the Community as described in Article III, Section E (a). Observers may request anonymous status, in which case they will not be moved to active status based on participation, unless specifically requested by them.

Article IV: Organizational Memberships

4.1 Section A: Eligibility

Any firm, partnership, Corporation, unincorporated association, academic institution, or governmental entity having an interest in furthering the purposes and objectives of the CASE Community shall be eligible for membership subject to submission of a completed membership request form, confirmation of eligibility, and the payment of such dues and fees as the Governance Committee may fix from time to time.

4.2 Section B: Representation

Each member organization shall designate, in a manner to be prescribed by policies and procedures adopted by the Governance Committee, at least one person who shall be recognized by the CASE Community as representing that member organization for purposes of participating in activities of the CASE Community.

4.3 Section C: Membership Classes

Each member organization shall be identified as one of the four types described in Article III, Section C. The representative(s) of the member organization shall belong to the member class based on that type.

4.4 Section D: Privileges of Organizational Membership

Each member organization may have privileges as designated by the Governance Committee upon approval of their membership.

Article V: Governance Committee

5.1 Section A: Purpose

The purpose of the Governance Committee is to establish and maintain the governance structure of the CASE open source Community.

5.2 Section B: Composition

- (a) The Governance Committee consists of the Directors of the Community. The Governance Committee comprises five (5) voting positions: a Presiding Director, one Industry representative, one Academia representative, one Government representative, and one Non-Profit representative. In addition, there are non-voting roles as specified below.
- (b) Each representative is responsible for representing the interests of their member class to the Governance Committee. Class representatives shall facilitate this representation through the establishment of sub-committees of class members, as described in Article V, Section F (d).
- (c) The Presiding Director may be a member of any class, but the role of Presiding Director cannot be held concurrently with the role of a class representative Director.

5.3 Section C: Meetings

- (a) Schedule: The Governance Committee meets at least once each quarter using the Committee-designated virtual platform or in person. The Governance Committee may hold additional meetings.
- (b) Voting: Each Governance Committee member is a voting member, except for appointed non-voting Directors. A 60% quorum of eligible voting Directors voting in the affirmative is necessary to record a vote on any topic, with the exception of those for which the bylaws state that a higher quorum is required.

(c) Records: All Governance Committee meeting minutes are recorded by the Community Secretary, approved by the Presiding Director, and posted to the Community website. The outcomes of all votes taken in Governance Committee meetings are recorded and published to the Community website.

5.4 Section D: Roles

The Governance Committee includes the following voting and non-voting roles:

- (a) Presiding Director (voting role): The Presiding Director is a voting member of the Governance Committee and serves as the lead Director of the Governance Committee. The Presiding Director approves the agenda for each Governance Committee meeting and the recorded meeting minutes from the previous meeting. The Presiding Director may act on behalf of the Governance Committee on any item where the Committee would have reasonably provided an affirmative vote in a meeting. The Presiding Director appoints the Secretary and the Treasurer. The Presiding Director always votes last in Governance Committee meetings. In votes where only three voting members of the Governance Committee are present, a Presiding Director who is employed by the same employer as another Director cannot cast a vote.
- (b) Assistant Presiding Director (voting role): The Assistant Presiding Director is appointed by the Presiding Director from the available Directors with voting privileges to serve for the same calendar year. The Presiding Director may not also serve as the Assistant Presiding Director in the same year. The Assistant Presiding Director fills in for the Presiding Director for any delegated activity. The Assistant Presiding Director may come from the same class of voting Directors as the Presiding Director.
- (c) Treasurer (voting role): The Treasurer is appointed by the Presiding Director from the available Directors with voting privileges to serve for the same calendar year. Any Director of the Governance Committee may serve as the Treasurer, except for the Presiding Director. At such time that the CASE Community has a budget, the Presiding Director and the Treasurer will maintain positive control of the funds in a bank account accessible to both

Directors, and the Treasurer will present a budget report at each Governance Committee meeting.

- (d) Director (voting role): Voting Directors who represent each of the member classes are elected annually by the election process specified in Article V, Section E. Roles and responsibilities for Directors with voting privileges will be designated by a majority affirmative vote of a 60% quorum of eligible voting members of the Governance Committee.
- (e) Secretary (non-voting role): The Secretary records the minutes of each meeting to the Community website. The Secretary records the outcomes of all votes taken in Governance Committee meetings for publication to the Community website. The Secretary maintains the list of Ontology Committee members and their organizations. The Secretary will have write privileges to all Community websites. Any Director may fill the Secretary role and maintain their voting membership if approved by the Presiding Director.
- (f) Director (non-voting role): The Presiding Director shall appoint a representative recommended by the Unified Cyber Ontology (UCO) community to a non-voting Director role to ensure collaboration activities between CASE and UCO communities. The Presiding Director may appoint any person to a non-voting Director role for 1 year to conduct any work deemed necessary. The Governance Committee may also appoint additional non-voting Directors as necessary to a term of one year after a majority vote in the affirmative from a quorum of 60% is established.
- (g) CASE Technical Director (non-voting role): The CASE Technical Director will attend each meeting of the Governance Committee as a non-voting member unless also serving in a voting Director role. The Technical Director may not serve simultaneously as the Presiding Director. The Technical Director will provide regular updates to the Governance Committee on the technical goals and achievements of the Ontology Committee. The Technical Director is a voting member of the Ontology Committee.

5.5 Section E: Term, Nomination, and Election of Governance Committee Members

- (a) Term: All Governance Committee roles are held from January 1 through December 31, plus any remainder of the first year after these bylaws are adopted by the Community. Each elected Director serves for a term of 1 year and may be re-elected to the same position for no more than 3 consecutive years. Directors may be returned after an absence of 1 year.
- (b) Annual Nomination and Election of Governance Committee Directors (voting): The Presiding Director will appoint two representatives to facilitate the annual election of Governance Committee Directors. The Presiding Director will allow for a 30-day nominating period prior to holding the elections. At the start of the nominating period, the two representatives will publish a call for nominations for each Governance Committee Director role, together with the date of the election.
- (i) Any active member of the CASE Community may nominate any active member (including self-nomination) to any Director role representing the member class aligned with their professional employment.
- (ii) Nominees for Presiding Director must have served one full year, within the previous 7 years, as a voting member of the Governance Committee prior to taking office as the Presiding Director. This condition is waived for the inaugural Presiding Director, who shall be nominated and elected according to the rules set forth in the clause specifying the *Initial Governance Committee Elections Process* (Article V, Section E).
- (iii) The same person may be nominated to both the Presiding Director and a representative Director role; however, those roles cannot be held concurrently.
- (iv) The CASE Technical Director is nominated and elected at the same time as the voting Governance Committee Directors.

Before the end of the nominating period, the Secretary will publish to the Community website the names, employers, member class, and short biographies of all candidates who have accepted nomination. The election shall be held no less than one week, and no more than three weeks, after the close of nominating period. Elections shall be completed before October 15 of the election year. Community members will vote by secret ballot for a single

nominee to represent each member class; for the Presiding Director; and for the CASE Technical Director. The representatives will provide the voting mechanism (e.g., website or email voting). Nominees with a simple majority of votes will win the vote for that position. In the case of a tie, there shall be a run-off election between the tied candidates. If a nominee to both the Presiding Director and a representative Director position has received the majority of votes for both positions, then the nominee will choose which position to hold. The nominee with the next highest number of votes for the remaining position will hold that position. The election results will be certified in writing by the two representatives, and this certificate will be retained as a record by the new Governing Committee. Election results will be published to the Community website by the Secretary. The outgoing Presiding Director shall organize and hold a transition meeting with the incoming Governance Committee Directors. New Directors will take their positions on January 1 of the following year and serve until December 31 (unless re-elected to their position).

(c) Initial Governance Committee Election Process: After these bylaws are adopted in accordance with the rules set forth in the Adoption of Bylaws clause, active contributors of the Community will appoint two representatives to facilitate the initial election of the Governance Committee Directors. The representatives will announce the date of the election through the Community website and all available communication channels. Thirty (30) days prior to the election, the representatives will publish a call for nominations for each Governance Committee Director role. The representatives shall publish to the Community website the names of all candidates who have accepted the nomination for each position, also the names of their employers and a short biography of each nominee. Community members will vote, and results will be determined, certified, and published, as described in the above section on Annual Nomination and Election of Governance Committee Directors. Inaugural Directors will take their positions immediately following certification of the election, serving a regular term from January 1 to December 31, as well as any portion of the preceding year.

(d) The Governance Committee shall update these bylaws with the voting process within two years after the adoption of these bylaws.

5.6 Section F: Responsibilities

- (a) Areas of Responsibility: The Governance Committee shall establish the Community's:
- (i) bylaws,
- (ii) code of conduct,
- (iii) budget,
- (iv) calendar,
- (v) strategy,
- (vi) websites,
- (vii) repository(ies) for CASE software and documentation,
- (viii) professional affiliations, contracts, and memorandums of agreement,
- (ix) licensing strategy for re-use of CASE and protection of contributors' intellectual property, and
- (x) other necessary business activities.
- (b) Record of Directors: The Secretary will record the names, roles, and professional affiliations of each member of the committee to the Community website. The Secretary will publish the names and employer affiliation of all non-voting Directors to the Community website unless the Governance Committee votes to retain those names and affiliations from public view.
- (c) Meetings: The Governance Committee conducts meetings as specified in Article V, Section C.
- (d) Establishment of Member Class Advisory Committees: Each voting Director representing a Member Class shall establish an advisory committee to support their representation of the perspective and concerns of their member class to the Governance Committee. Appointed advisory committee members do not have voting rights on the Governance Committee. Each advisory committee shall consist of the voting Director and

active Community members appointed to represent their class, according to the following guidelines:

- i. Industry advisory committee: The voting Director from Industry shall appoint advisory committee members to ensure representation from each of the following three types of Industry organizations: tool vendors, digital investigation service providers, and government contractors.
- ii. Academia advisory committee: The voting Director from Academia shall appoint advisory members to ensure representation from each of the following two types of entities: traditional academia (*e.g.* college and university), and independent researchers and/or developers.
- iii. Government advisory committee: The voting Director from Government shall appoint advisory members to ensure representation from each of the following four types of organizations: National, sub-national, international, and law enforcement (*e.g.*, international law enforcement or national government(s) other than one already represented).
- iv. Non-Profit advisory committee: The voting Director from Non-Profit shall appoint advisory members to ensure representation from more than one non-profit, not-for-profit, or non-governmental organization.
- (e) Technical Direction: The technical direction of the CASE Community is established by the CASE Technical Director with inputs from the Ontology Committee.
- (f) Support to the Technical Director: The Governance Committee may charter other technical committees as necessary to provide specific inputs to the Technical Director. The Governance Committee shall publish the charter of new technical committees and establish a completion date for each committee.

5.7 Section G: Powers

(a) Business Actions and Affiliations: To maintain or improve the effectiveness and broad adoption of the CASE specification language globally, the Governance Committee may take actions necessary for the Community to join an established standards body and/or to

incorporate the CASE Community as a non-profit entity, following a vote that meets the following requirements:

- i. At the direction of the Governance Committee, the Secretary shall publish to the CASE Community website a notice of the proposal to join an established standards body or to incorporate as a non-profit entity, allowing a comment period of 180 days prior to a vote on the proposal by the Governance Committee.
- ii. At the end of the comment period, the Governance Committee shall record a unanimous vote in favor of the proposal from all voting Directors on the Governance Committee.

After those requirements are met, the Presiding Director may initiate actions to join the established standards body or to incorporation. In case of incorporation as a non-profit, the Governance Committee shall have authority to obtain Director and Officer Insurance to protect individuals who assume roles on the Governance Committee, upon a majority affirmative vote of a 60% quorum of voting Directors.

- (b) Dues and Fees: The Governance Committee may implement a membership fee schedule, with the approval of 80% of the Governance Committee voting in the affirmative. Consecutive increases in fees shall not exceed 10%.
- (c) Payment of Expenses: The Governance Committee may pay for (i) services of supporting professional entities such as lawyers or consultants, (ii) insurance for directors and officers, or (iii) operational expenditures (*e.g.*, website hosting fees, postage) after an affirmative vote of 60% of the eligible voting members and concurrence from the Treasurer that funds are available.
- (d) Appointment of Non-voting Directors: The Governance Committee may appoint additional non-voting Directors as necessary to a term of one year after a majority vote in the affirmative from a quorum of 60% is established.
- (e) Establishment of Committees: The Governance Committee may establish other committees as necessary.

- (f) Disestablishment of Committees: The Governance Committee can disestablish any committee, in accordance with the procedures stated in Article IX, Section C.
- (g) Amendment of Bylaws: The Governance Committee may change any part of these bylaws, in accordance with the procedure stated in Article XIII, Section A.

5.8 Section H: Remuneration

Directors of the Governance Committee shall not be paid for their work until such time that this Community may incorporate as a non-profit entity. Governance Committee Directors are responsible for gaining ethics and/or legal approval from their employer and securing funding for their time from their employer. Directors who donate their time, in lieu of using funds from their employer, will still represent the member class based on their employer's category.

5.9 Section I: Removal and Replacement of Governance Committee Directors

- (a) Removal for Cause: The Governance Committee may remove any Director who misses two consecutive quarterly committee meetings or violates the Community Code of Conduct. The Governance Committee may take this action up for vote at the quarterly meeting following the two previously missed quarterly meetings or at a meeting convened for this purpose exclusively. Removal of the Director shall require a majority affirmative vote with an 80% quorum of the eligible voting members of the Governance Committee. The Secretary will remove the names and professional affiliation of any removed Director from the Community website on the day of their removal.
- (b) Removal by Decision: The Governance Committee may remove any Director by a majority affirmative vote with an 80% quorum of the eligible voting members of the Governance Committee. The Secretary will remove the names and professional affiliation of any removed Director from the Community website on the day of their removal.

- (c) Vacancies: Vacancies in the elected Governance Committee roles (whether resulting from removal, resignation, or death) shall be filled as follows, either at the next quarterly
- meeting after the vacancy occurs, or at a meeting convened specifically for this purpose:
- (i) Presiding Director: The Governance Committee shall promote one of their own members

into the Presiding Director role by a simple majority vote of the eligible voting members of

the Governance Committee. The new Presiding Director shall appoint a replacement to

represent their member class. The new Presiding Director will complete the term of the

former Presiding Director.

(ii) Representative (voting) Directors: The Presiding Director, with consultation from the

Governance Committee, shall appoint a replacement Director with voting privileges from the

member class represented by the former Director (i.e., Academia, Industry, Government, or

Non-Profit).

(iii) CASE Technical Director: The Presiding Director, with consultation from the

Governance Committee, shall appoint a replacement CASE Technical Director.

Article VI: Officers

6.1 Section A: Officers

The officers of the organization are a presiding director (of the Governance Committee), an

assistant presiding director (of the Governance Committee), four representative directors

(one voting director from each of the four Member classes), a CASE technical director, a

treasurer, and a secretary. Offices which may not be held concurrently are identified below.

6.2 Section B: Presiding Director

The Presiding Director is a voting member of the Governance Committee and serves as its

lead Director. Specific duties are described in Article V (Governance Committee), Section

D. The Presiding Director is elected according to the rules set forth in Article V, Section E,

for the Governance Committee elections process.

6.3 Section C: Assistant Presiding Director

The Assistant Presiding Director is appointed by the Presiding Director to serve for the same calendar year as a substitute for the Presiding Director for any delegated activity. The role of Presiding Director and the role of Assistant Presiding Director may not be held concurrently by the same individual.

6.4 Section D: Representative Directors

Voting directors who each represent a class of members (as described in Article V) are elected annually by the process specified in Article V, Section E.

6.5 Section E: CASE Technical Director

The Technical Director is the lead of the Ontology Committee. The Technical Director is elected annually through the process specified in Article V, Section E, along with the Governance Committee Directors. Any Community member may self-nominate for this position. The Technical Director may serve concurrently as a voting member of the Governance Committee if they are also voted into that position during the annual elections; however, the Technical Director may not serve concurrently as the Presiding Director. The CASE Technical Director position may not be held by the same person for more than two years consecutively, however, that person may return to the position after a one-year absence if they are elected. Duties and responsibilities of the CASE Technical Director with respect to the Ontology Committee are specified in Annex VIII, Section E.

The roles of CASE Technical Director and Presiding Director may not be held concurrently by the same individual.

6.6 Section F: Treasurer

The Treasurer is appointed by the Presiding Director from the available Directors of the Governance Committee with voting privileges to serve for the same calendar year. Specific

duties are described in Article V (Governance Committee), Section D. The role of Treasurer and the role of Presiding Director may not be held concurrently.

6.7 Section G: Secretary

The Secretary is appointed by the Presiding Director. Any Director may fill the Secretary role and maintain their voting membership if approved by the Presiding Director. Specific duties are described in Article V (Governance Committee), Section D.

Article VII: Meetings

7.1 Section A: Regular Meetings

Regular meetings of the CASE Community shall be held at dates and times specified by the Governance Committee.

Regular meetings of the Governance Committee will be held as specified in Article V, Section C.

Regular meetings of the Ontology Committee will be held as specified in Article VIII, Section A, and in the Ontology Committee Operations Guide.

7.2 Section B: Annual Meetings

Annual meetings of the CASE Community may be held at dates and times specified by the Governance Committee.

7.3 Section C: Special Meetings

Special meetings of the CASE Community may be held at dates and times specified by the Governance Committee.

7.4 Section D: Time, Notice, and Call of Meetings

Announcement of meetings of the Community shall be posted to the Community website, including time, place, remote connection information, and agendas.

7.5 Section E: Meeting Minutes

Meeting minutes for the record from the previous meeting shall be reviewed for acceptance at the start of the next formal meeting. Minutes of meetings of the Community at large shall be published on the Community website.

Article VIII: CASE Ontology Committee

8.1 Section A: Purpose

The CASE Ontology Committee shall be a standing committee established for the purpose of developing and publishing the Cyber-investigation Analysis Standard Expression (CASE) technical artifacts. The CASE technical artifacts include the CASE ontology, documentation, schema mappings, API and other software required to support the adoption of CASE.

8.2 Section B: Composition

- (a) Members: The Ontology Committee consists of the CASE Technical Director and additional members, who are all appointed by the Technical Director in accordance with guidelines specified later in this Article.
- (b) Assistant Technical Director: The Technical Director shall appoint an Assistant Technical Director to fill in for the Technical Director in their absence. They may be in the same class of members. The Assistant Technical Director is appointed by the Technical Director elected for the same year.
- (c) Voting and Advisory Members: There are both voting members and non-voting (*i.e.*, advisory) members of the committee; their status is determined by the Technical Director at the time of appointment and may be changed by the Technical Director subsequently. All

committee members may attend general meetings of the Ontology Committee. Only voting members may vote on measures before the committee.

- (d) Leadership: The Ontology Committee is led by the Technical Director.
- (e) Timeframe: The initial Ontology Committee shall be established by the CASE Technical Director after the election of the first Governance Committee, but not before a Code of Conduct is approved by the Governance Committee Presiding Director and published to the Community website.
- (f) The Technical Director appoints all members of the Ontology Committee in accordance with the following guidelines:
 - Inaugural appointments: Individuals who were contributing to the CASE Community
 from 1 January 2017 until the initial adoption of these bylaws shall be eligible to
 receive an appointment to the Ontology Committee upon request and after approval
 of their application for membership in the Community as either individual members or
 as representatives of a member organization.
- ii. The Technical Director shall appoint at a minimum two voting members from each member class (Industry, Academia, Government, and Non-Profit).
- iii. The Technical Director shall appoint at least one Industry representative from a company whose principal business activity is tool sales and at least one Industry representative from a company whose principal business activity is offering digital investigation services.
 - The Technical Director shall appoint no more than two voting members who have the same employer.
- v. There is no limit to the number of Ontology Committee members that the Technical Director may appoint.
 - 1. The Technical Director may appoint technical contributors as non-voting (*i.e.*, advisory) committee members.

- vii. The Technical Director may change the status of an Ontology Committee member from voting to advisory and *vice versa*.
- viii. The Technical Director shall appoint at least one representative from Law Enforcement within the Government class. Appointment of a law enforcement representative(s) with voting rights is left to the discretion of the Technical Director.
- (g) The Technical Director will provide to the Secretary the name, employer, member class, voting status, and email address of each committee member for official use.

8.3 Section C: Voting

- (a) Ontology Committee voting: For a measure before the full Ontology Committee (e.g., ontology change request, committee process change) to pass, three of the four classes must vote in the affirmative for the ballot item with more than 50% of the voting members in each class voting in the affirmative for the ballot item.
- (b) Subcommittee voting: Voting procedures for measures before subcommittees of the Ontology Committee shall be determined by the Technical Director or the procedure decision will be delegated by the Technical Director to the designated lead for that subcommittee.
- (c) Record keeping: The Technical Director shall record all votes of the Ontology Committee and provide those records to the Secretary to add to the Community record.

8.4 Section D: Member Responsibilities and Review

- (a) Contributions: Ontology Committee members shall function in at least one of the contributor roles (e.g., ontologists, mappers, adopters) as described on the Community Wiki.
- (b) Review: The Technical Director appoints members based on their ability to contribute to and/or adopt the CASE specification language. Member appointments will be reviewed by the Technical Director to ensure that committee members are contributing to development

of CASE. Non-contributing members will be removed from the Ontology Committee by the Technical Director.

8.5 Section E: Technical Director Responsibilities

- (a) Neutrality: The Technical Director serves as an independent leader by not actively promoting their employer's position. The Technical Director strives to achieve a balanced position between the demands of all Ontology Committee members.
- (b) Planning: The Technical Director establishes the general direction of the Ontology Committee by maintaining a 3-year plan for the committee. The Technical Director shall present this plan annually to the Governing Committee. The Technical Director shall present significant updates to the plan at quarterly meetings of the Governing Committee.
- (c) Meetings: The Technical Director hosts monthly Community developer virtual engagements and arranges CASE-centric engagements with Community members globally. The Technical Director records these engagements using multimedia capture or through the publication of meeting minutes to the Community website.
- (d) Community Technical Oversight: The Technical Director ensures that the CASE

 Ontology, review and approval processes, and all supporting artifacts are current on the

 Community website. The Technical Director ensures that repository(ies) for software and
 documentation are current and consistent with the technical requirements of CASE ontology
 development. The Technical Director may request that the Governance Committee allot
 additional resources for repository development and maintenance. The Technical Director
 may establish subcommittees of the Ontology Committee to facilitate the work of the
 committee. The Technical Director may delegate these responsibilities to members of the
 Ontology Committee, or to other members as identified by the Governing Committee.

 (e) Ontology Committee Operations Guide: The Technical Director shall establish the CASE
 Ontology Committee Operations Guide after receiving a simple majority of affirmative votes
 from the appointed voting members of the Ontology Committee. The Ontology Committee
 Operations Guide shall document its working processes in an Operations Guide, to be

drafted within the first quarter after formation of the committee, and including guidelines for the following activities:

- i. Process steps, including documentation required for submission of CASE ontology change proposals.
- ii. Process steps and schedule by which the Technical Director or their designee shall approve, reject, or refer for additional technical analysis all CASE ontology change proposals.
- iii. Process steps by which the Tech Director shall provide regular monthly status reports on CASE ontology change proposals to submitters and to the Community.
- iv. Process steps and guidelines for prioritization of CASE ontology change proposals.
- v. Specification of a review and comment process to collect feedback, including about dependencies and impact of the ontology change proposals.
- vi. Review shall focus on maintaining backward compatibility to minimize the lifecycle adoption costs of the CASE specification language.
- vii. Process steps and schedule by which approved change proposals shall be integrated into a new CASE ontology release after approval by the Ontology Committee.
- (f) Governing Committee Updates: The Technical Director shall present regular updates on the progress of the Ontology Committee to the Governing Committee.

Article IX: Other Committees

9.1 Section A: Special Committees

The Governance Committee may charter special committees as needed.

9.2 Section B: Member Class Committees

A voting Director who represents a member class shall establish a subcommittee to facilitate the representation of the interests of that class, as specified in Article V, Section F.

9.3 Section C: Disestablishment of Committees

The Governance Committee can disestablish any committee by a majority vote of an 80% quorum of the eligible voting members of the Governance Committee, following publication to the Community website of a 90-day written notice of the motion to disestablish.

Article X: Finances

10.1 Section A: Fiscal Year

The fiscal year of the Community shall be from January 1 to December 31 of each calendar year.

10.2 Section B: Budget

The Community budget for the next fiscal year shall be developed by the Presiding Director and the Treasurer, during the 4th quarter of the preceding fiscal year. The budget shall be approved, or amended and approved, at the first meeting of the Governance Committee in the new fiscal year. The budget may be changed by the Governance Committee as necessary throughout the year, including prior to initial approval. Budget approval and budget modification shall both require a majority affirmative vote of a 60% quorum of the eligible voting members of the Governance Committee. The Treasurer shall have the budget reporting responsibilities specified in Article V, Section D.

10.3 Section C: Operating Expenditures

The Governance Committee shall pay for services of supporting professional entities after an affirmative vote of 60% of the eligible voting members and concurrence from the Treasurer that funds are available, as described in Article V, Section G.

10.4 Section D: Accounts and Recordkeeping

Community bank accounts shall be accessible to both the Presiding Director and the Treasurer. The Treasurer shall keep accurate records of Community bank accounts, and of all disbursements and income and/or credits.

Article XI: External Status and Affiliations

11.1 Section A: Incorporation

The Governance Committee may take business actions including incorporation of the Community as a non-profit entity, under its powers as described in Article V, Section G.

11.2 Section B: Affiliation with Standards Development Organization (SDO)

The Governance Committee may affiliate the Community with a Standards Development Organization (SDO), under its powers as described in Article V, Section G.

Article XII: Meeting Protocol

The meeting protocol for general meetings of the Community shall be established by the Governance Committee consistent with the Community's bylaws. Meeting protocols for regular and ad hoc committee meetings shall be established by the person holding the lead role for the committee.

Article XIII: Amendments and Other Provisions

13.1 Section A: Amendment of Bylaws

(a) Amendment Process: The Governance Committee may change any part of these bylaws after an affirmative vote from a 60% quorum of the eligible voting members of the Governance Committee is established. The Governance Committee must propose

Community Bylaw changes to the CASE Community by publication on the Community website and allow for a 30-day comment period before taking a vote. The Secretary will publish all changes to the bylaws on the Community website.

(b) Required Update on Elections of Directors: Within two years after the adoption of these bylaws, the Governance Committee shall update these bylaws with the voting process for the annual election of Governance Committee Directors.

Article XIV: Conflicts of Interest

14.1 Section A: Avoidance of Conflicts (Voting)

Whenever an officer has a financial or personal interest in any matter coming before the Community and/or the Governance Committee, that officer shall fully disclose the nature of the interest. The Presiding Director can mandate that the Director with the conflict recuse themselves from voting on the specific topic. If the Presiding Director has the conflict, a quorum of two other Directors with voting privileges can mandate the Presiding Director to recuse themselves from voting on the specific topic.

14.2 Section B: Avoidance of Conflicts (Service)

Governance Committee Directors are responsible for gaining ethics and/or legal approval from their employer and securing funding for their time from their employer. Ontology Committee members are responsible for gaining ethics and/or legal approval from their employer and securing funding for their time from their employer. All Community member not affiliated with a committee are responsible for gaining ethics and/or legal approval from their employer and securing funding for their time from their employer.

Article XV: Dissolution Clause

15.1 Section A: Notice of Proposed Dissolution

Approval of a motion to hold a vote on proposed dissolution of the Community shall require an affirmative vote by 80% of the Governance Committee. If passed, then notice of a vote on dissolution shall be published to the Community website and all Community mailing lists no less than one year (365 days) prior to the final vote.

15.2 Section B: Final Approval of Proposed Dissolution

After the expiration of the one-year period of notice, the vote on dissolution shall be conducted, in which all members of the Governance Committee must vote for approval. Prior to final dissolution, Community property will be donated to another community with similar goals, to a non-profit entity, or to a recognized standards body as identified by the final Governing Committee.

ADOPTION OF BYLAWS

These bylaws will become effective after 10 active members of the CASE Community vote for them in the affirmative. Of the 10 votes, a vote is required from no less than two (2) Academic, two (2) Industry, two (2) Government, and two (2) Non-Profit entity representatives. Any single organization may register only one vote.

These bylaws are accepted upon election of the initial Presiding Director and appointment of a Secretary.

Eoghan Casey, PhD

Presiding Director

Signed 22 January 2019

Cory L. Hall

Community Secretary

Signed 22 January 2019