Seattle Pacific University - Department of Computing Sciences
Statement on Scholarship Standards

1) Rationale for the Standards stated in this document

There are two driving factors for our scholarship standards and expectations in the Department of Computing Sciences at Seattle Pacific University. The first is the Computing Sciences field itself. Our field is in constant, rapid change and keeping up with these changes is an absolute necessity. The second driver is the broad nature of scholarly expression within the Computing Sciences field. Not only traditional academic publications are used to communicate scholarly findings, but also patents, standards and open-source implementations.

A faculty member in the Department of Computing Sciences (CSC) must stay current in the discipline. To that end, each faculty member should be engaged in professional activities of a scholarly nature that go beyond the usual classroom preparation.

Each faculty member must have a special interest in some area that is related to the computing sciences. This could be a specialty within an area of the discipline; examples of this would be software engineering, computer networks, systems programming, or information systems. Or, it could be a special interest in computing sciences education. Or, it could involve a special interest in questions regarding the relationship between the Christian faith and the computing sciences.

Regardless of the faculty member's chosen area of investigation, it is the responsibility of the faculty member to keep abreast of the new developments in that area through study and participation in the profession at large. In addition, each faculty member should be involved in some kind of scholarly investigation or research. This work should lead to the sharing of results through talks, presentations, publications, or software products. **What characterizes scholarship in the computing sciences is that it results in a product that is evaluated and accepted by other computer scientists.**

The three overarching goals are:

1. To increase the knowledge of the faculty member in a field of the computing sciences
2. To provide for professional development of the faculty member
3. To establish professional relationships outside of Seattle Pacific University

The Department of Computing Sciences recognizes that an ongoing commitment to scholarly work and an increasing commitment to the profession at large is required of the faculty member. This will require thoughtful planning and prioritization of scholarly effort (often documented in the Professional Development Plan), specific attention to suitable activities to involve and carry out the intended research, and success in demonstrating the ability and desire to bring scholarly efforts to completion that result

in valued scholarly products. In establishing and fulfilling this scholarly trajectory, a faculty member will clearly demonstrate an active and ongoing participation and engagement in their scholarship.

2) Examples of Recognized Scholarly Products

Scholarly products include but are not limited to:

1. Peer reviewed papers published in journals or conference proceedings
   The primary characteristic of these papers is that they are reviewed by computer scientists or engineers prior to acceptance for publication in a journal or conference with an audience primarily composed of computer scientists. For acceptance as evidence of scholarship by CSC, the reviewers must be from outside of SPU. In the computing sciences field, it is common to have multiple author papers. In the case of multiple authorship, the faculty member must show that s/he contributed significantly to the contents of the accepted paper. It is increasingly common for journals and proceedings to be distributed electronically. Therefore, it is acceptable for these papers to be in either digital or paper format. Common forums for these papers would include the peer-reviewed journals and conferences of the ACM, the Institute for Electrical and Electronic Engineers (IEEE), the Consortium for Computing Sciences in Colleges (CCSC), the International Society for Optical Engineering (SPIE) and the Society for Computer Simulation (SCS).

2. Textbooks, chapters of textbooks, or compiled works
   The necessary characteristic of these works is that they are reviewed and approved by computing scientists or engineers prior to publication. This is in keeping with the spirit and intent of scholarship, specifically that it is a product that is disseminated after being reviewed and accepted by our peers.

3. Significant software systems
   Development of a software product can be considered scholarly work in the field of computing sciences. A scholarly effort of this nature is characterized by the fact that it was crafted using some element of novelty. In other words, the software product must contain some new algorithm, be developed using some new approach to a problem, or be used to solve some new problem. For acceptance as evidence of scholarship by CSC, the software product must be reviewed by computing scientists outside of the organization for which it was developed and must be deemed as exhibiting some element of novelty by the reviewers. If national security laws or intellectual property rights prevent outside review, appropriate statements of novelty and scope by computer scientists within the organization will be accepted. In the case of multiple developers, the faculty member must show that s/he contributed significantly to the software system.

4. Patents granted by a governmental body
   Innovation in the field of computer science can lead to the development of products that exhibit such novelty that they are granted a patent by a governmental body. That governmental body may be the United States, a

foreign country, or an agency of the United Nations. A patent is granted for work that has never before been done. It is a very highly reviewed process that results in the recognition of a novel development. For acceptance as evidence of scholarship by CSC, the object of the patent must be related to the field in the computing sciences.

5. The development and publishing of industry standards
   The development of industry standards is extremely important to practitioners in the computing sciences field. Members of industry standards committees are demonstrated experts in their area and are accepted as members of the committee by virtue of their knowledge, experience, and wisdom. Work on standards typically involves many years of study and meetings, and members of the standards committee come to know their area in great depth. The result of the committee's deliberation is the publication of an industry standard document that has been highly reviewed. There are many recognized standards organizations including the IEEE, the American National Standards Institute (ANSI), and the International Standards Organization (ISO). For acceptance as evidence of scholarship by CSC, the faculty member should be the sole or primary author or technical editor, and the standards must be related to the field of computer science. Note that a key role in the standard's development is required; simply participating in the work of the committee is generally not significant scholarly work.

The products noted above are merely examples of acceptable evidence of scholarly work. The faculty member may submit other products for consideration of acceptance as evidence of scholarly work but that evidence must satisfy the criteria that the work is in an area related to the computing sciences and that the product was reviewed by other computing scientists or engineers.