The National Association of Industrial Technology: Origins and Leadership for the Future

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Industrial technology has evolved over the past 50 years from programs in industrial arts and vocational trade teacher education to programs in industrial technology. In 1967, the National Association of Industrial Technology (NAIT) was formed to provide direction for the continuing development of an emerging new field that prepares graduates for positions in industrial settings. It appeared that the skill sets being created by the teacher training programs served to prepare some graduates for production supervision, tool engineering, and other similar job titles. This article addresses how NAIT has evolved to fill this role and what is required to continue to strengthen its role of serving the best interests of industry and the profession.

Association Purpose and Objectives

It is NAIT's purpose to foster the improvement of industrial technology curricula in institutions of higher education by providing direction and leadership. The professional attention to the development of content, faculty, and facilities has led to the establishment of an official definition that describes industrial technology as "a field of study designed to prepare technical and/or technical management-oriented professionals for employment in business, industry, education, and government" (NAIT, 1997, p. 1).

To aid in implementing this definition of industrial technology, NAIT has stated the following objectives in its constitution (NAIT, 1988):

A. To promote the establishment of curricula of Industrial Technology.

B. To promote the establishment and maintenance of curricular standards designed to serve the best interests of industry and the profession.

C. To provide opportunities for the study and discussion of all questions, issues, and problems related to curricula of Industrial Technology.

D. To promote and sustain worthwhile research endeavors related to the curricula of industrial technology.

E. To provide opportunities for collecting, developing, and disseminating information concerning industrial technology education among its members, industrial personnel, fellow educators, administrators, counselors, students, and laymen.

F. To promote the goals and interests of the Association by cooperating with other national, regional, and local special interest organizations having related interests and goals.

G. To develop and maintain a common understanding among its members, industrial personnel, fellow educators, and the general public of the unique and essential role of Industrial Technology education as a function of the total public educational system.

H. To provide through an accreditation process for recognition of the attainment of appropriate standards for industrial technology programs. (pp. 1–2)

Curriculum and accreditation standards established by NAIT provide a framework and structure for the network of industrial technology programs in colleges and universities throughout the United States. Further, the network of institutional programs relies on NAIT to represent the discipline to outside agencies and organizations.

Membership

Association membership is open to all individuals, firms, institutions, and organizations interested in promoting the objectives of the association as well as exchanging information and ideas relating to the discipline of industrial technology as it relates to business, industry, education, and government. Naisbitt (1982) observed that scientific and technical information increases 13% per year, which means it doubles every five and one half years. The nature of industrial technology requires practitioners working in the discipline to continually update their knowledge and skills to keep pace with new and emerging technologies. Membership is classified into one of the following categories:

Professional—For individuals who are Industrial Technology educators, Industrial Technology graduates, or employed in areas related to Industrial Technology.

Student—For students who are enrolled in associate, baccalaureate, or graduate Industrial Technology curricula.

Organizational—For institutions preparing Industrial Technology professionals, enterprises which are employers of Industrial Technology professionals, or other organizations interested in promoting the objectives of the Association.

Honorary—For individuals who have been recognized by their peers as making significant contributions to the Association or Industrial Technology.

Retired—For those individuals who are no longer employed who were members of the Association in good standing for the five years previous to their retirement.

Affiliate—For groups of ten or more individuals who are professional or student members. (NAIT, 1998, pp. 3–4)

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Perhaps the foremost benefits derived from membership in the association are the opportunities to promote and directly influence the field of industrial technology. Members join an organization where participation in a wide variety of programs and activities is encouraged and rewarded. NAIT publishes the quarterly *Journal of Industrial Technology* to foster professional advancement and to support member research interests. There are opportunities for serving in officer positions or on regional or national committees (Reece, 1997). Networking with experts in the many specialty areas of industrial technology contributes significantly and positively to professional development. Networking is encouraged through the national convention, regional meetings, and newsletters, and through the focus groups in a number of specialty areas of industrial technology (www.nait.org). Members of the association help define and promote industrial technology as an evolving discipline important to business and industry competing in the international marketplace.

NAIT program accreditation benefits both the institution and its faculty. Institutions and faculty alike are recognized as having a superior level of professional expertise in specific areas of industrial technology. NAIT accreditation aids in focusing institutions as to who they are and what they do. Further, accreditation develops a strong professional bond between and among all individuals and organizations actively involved in the discipline of industrial technology (www.nait.org).

Historical Development

The effects that technology has had on industrial productivity and growth became apparent during the post World War II period. The demand for professional industrial personnel with higher education, technical application skills, and leadership qualities increased as engineering programs offered less laboratory application courses (Keith & Talbott, 1991). The success of the first industrial technology four-year baccalaureate programs to prepare students for technical management positions created a need for the profession to define industrial technology, develop curriculum standards, and apply these standards through an accreditation program. In 1965, Dr. Charles W. Keith, coordinator of the industrial technology program at Kent State University, chaired the first national meeting that discussed the objectives of industrial technology. This first meeting set the stage for the continuing development of the discipline of industrial technology and also set the stage for the establishment of the NAIT. One year later a second conference, with the theme "Curriculum Standards and Accreditation," provided the opportunity for Dr. Frank Dickey, executive director of the National Commission on Accrediting (NCA), to promote the need for a formal organization that would provide leadership in the education of people involved in technical management positions in industry.

NAIT became the first formal association to represent the industrial technology profession at the third conference, named "Countdown," held in Missouri in 1967. At that meeting, five task forces were established to study accreditation issues and set the stage for NAIT to become the approved accrediting agency for industrial technology programs. In 1969, the first application to NCA (later known as the Committee On Post-Secondary Education, COPA) was rejected, forcing NAIT to review its definition and objectives and to clearly differentiate its program from that of engineering technology. There was some concern expressed at the time by other specialized accreditation agencies that industrial technology overlapped their areas of responsibility. However, the second application submitted to the NCA in 1973 was approved, and NAIT was recognized by NCA, and later COPA, through 1982. At that time, NAIT withdrew from COPA because of the increasing level of annual membership fees.

In 1988, NAIT applied for and received recognition from the U.S. Department of Education (USDE) for the accreditation of industrial technology programs. According to Kicklighter (1989), this recognition provided security to employees and professionals through its recognized standards and definitions, and assured a certain level of quality that was not implied by nonaccredited programs. In 1994, Congress removed the authorization of the USDE to recognize specialized accreditation agencies unless specifically required to receive federal program support. NAIT, as well as many other specialized accreditation agencies, was therefore no longer recognized by USDE. NAIT is currently a member of the Association of Specialized and Professional Accreditors (ASPA).

Administrative Organization and Structure

Over the years, NAIT's involvement in critical technological areas such as manufacturing, electronics, design, and construction resulted in a wide diversity of leadership responsibilities. Leaders in the association discussed various ways to provide this diversity of leadership so that the association would remain a

"dominant force in shaping and nurturing the discipline of industrial technology" (http://nait.org/assn.html). In 1987, the bylaws of the association were revised and four divisions were formed to provide the diversity of leadership needed to take the association to the next level of development. Membership in one of the divisions of the association is included with membership in the association (NAIT, 1988). The four divisions include university, community college and technical institute, industry, and student. The community college and technical institute division is particularly noteworthy since there is a very large number of two-year technical programs, typically associate of applied science (AAS) degrees, that exist without a specific accreditation body to utilize.

Each division has a president elect, president, past president, and regional director who make up the division executive committee with the existence of an overseeing executive board consisting of the immediate past president and president of each division. The officers of the board are the chair, who is selected from the divisions' past presidents, and the vice chair, who is selected from the divisions' presidents. In addition, the board of accreditation and the board for certification exist as autonomous decision-making bodies to authorize accreditation and certification decisions, respectively. The relationship between the executive board (including the board of accreditation and the board of certification) and the individual divisions is shown in Figure 1. According to NAIT's constitution and bylaws (NAIT, 1988), the responsibilities for each board and division are as follows:

> Executive Board. Propose additions and/or amendments to the constitution and bylaws of the Association; approve all published materials; distribute funds and audit financial records; evaluate the Executive Director and initiate action to carry out the purposes and objectives of the Association.
> Accreditation Board. Autonomous authority for NAIT accreditation program.
> Certification Board. Autonomous authority for NAIT certification of individuals.
> Community College and Technical Institute Division. Expand and improve the associate degree level curricula of Industrial Technology within institutions of higher education.
> Student Division. Develop leadership capabilities of students enrolled in Industrial Technology programs through the establishment and support of student chapters.
> Industry Division. Stimulate industry and business awareness of Industrial Technology programs and the graduates of these programs and to encourage the continuing professional development of Industrial Technology graduates.
> University Division. Establish, maintain, and improve baccalaureate and graduate level curricula of Industrial Technology programs within institutions of higher education through the promotion of appropriate standards. (p. 7)

The executive board of NAIT has encouraged the formation of additional specialized divisions as authorized by the association bylaws.

Future Directions

During the 1997-98 academic year, the NAIT executive board planned a number of actions impacting the future growth and structure of the association. These actions included the following:

Expansion of Divisions: Three new divisions were officially approved at the 1998 conference. They are manufacturing systems, research, and graphics. Strong support for the new divisions was evident at the 1998 NAIT conference.

Foundation Board: A NAIT foundation board was established within the current 501 (c) (3) corporate structure. Dr. Clois Kicklighter (retired dean of technology at Indiana State University) was appointed by the executive board to serve as the first chair of this board.

Program Sponsors for Accreditation: Society of Manufacturing Engineers has agreed to become the first program sponsor in the area of manufacturing for the NAIT accreditation program. Other program sponsors are expected to be approved in other specialized areas within industrial technology.

Professional Chapters: Even though NAIT authorized the establishment of professional chapters several years ago, it has not promoted the concept. The promotion of professional chapters is expected to be a priority over the next couple of years.

Public Relations Effort: NAIT has initiated a major public relations program that will involve the promotion of industrial technology to high school students and, later, the promotion of industrial technology career options in business, industry, education, and government. The first stage will be the completion of an industrial technology careers opportunity CD-ROM project that will introduce high school students to career opportunities in industrial technology. Specific industrial technology offerings throughout the United States will be accessible through the disk. Later stages will involve the promotion of industrial technology graduates designed to impact human resource hiring practices in business, industry, education, and government.

Enhance Research Capability: In addition to forming a new division in research, the NAIT board authorized an immediate change in the format of the *Journal of Industrial Tech-*

nology. Beginning with the Winter 1999 issue, the journal will utilize an all-electronic format. In addition to much better access to the articles published in the journal, a new classification system will enable interested parties to easily access articles by topic, author, and issue.

NAIT is playing a vital role in the development of this new discipline called industrial technology. The association serves as the adhesive that bonds dedicated, capable professionals. The vehicles developed by the association to accredit programs, certify individuals, and promote teaching, research, and service are providing a positive impact on students, faculty, and society in general.
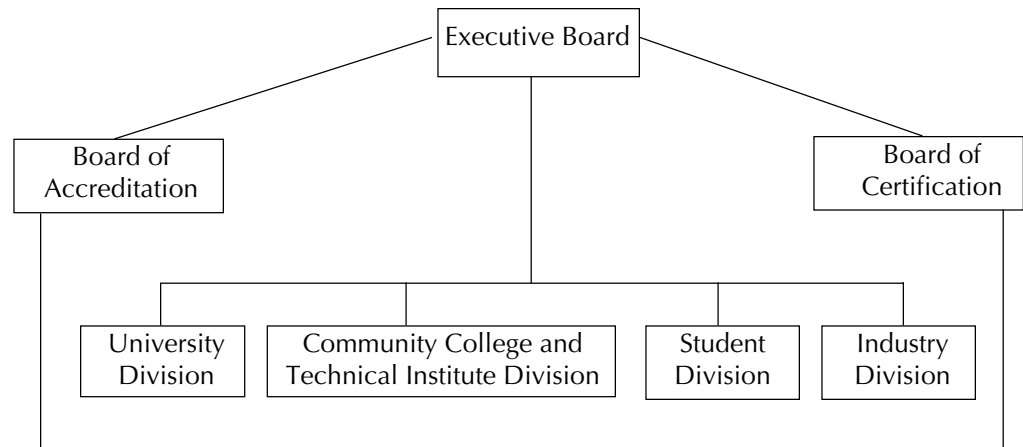
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Figure 1. **NAIT's structure.**

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