Biographies

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ADAPSO, regulated competition, and professional services: 1976–1986

Together with the accompanying biography of Lawrence J. Schoenberg, this material completes a series exploring the history of the Association of Data Processing Service Organizations and some of its most active members. Earlier articles examined its origins in the early 1960s as a trade group for service bureaus and its expansion during the late 1960s and early 1970s into the leading group for time-sharing companies and packaged software suppliers.[1] This article briefly explores its political activities during the 1970s, its relationship with professional services firms, and the problems it faced during the 1980s as the software industry shifted toward microcomputers.

Competition, cooperation, and IBM

One of Milton Wessel's duties as ADAPSO's general counsel was to ensure that its activities did not breach any antitrust regulations. There were many potential pitfalls. One was the question of whether firms viewed as hostile by many of the association's members—such as IBM, AT&T, and the major accounting firms—could be restricted from joining ADAPSO.[2] Other questions concerned the association's formal programs: Could cost data be collected or model contracts propagated without risk of illegal collusion to fix prices? Wessel produced a comprehensive and confidential guide to the legal precedents and principles involved in these issues, which was provided to all ADAPSO officials.[3]

The association's program of speakers from industry gradually became slicker and grew to feature more senior figures. The focus of the meetings, however, remained on the smaller seminars held in break-out sessions and conversations in hallways and hotel rooms. These less formal sessions, usually with no lawyer present, posed particular legal challenges. So did the Presidents' Roundtable series created for informal discussion among the association's most senior members.[4]

When corresponding with ADAPSO officials, Wessel would often warn "out of an abundance of caution" of the legal perils inherent in a particular course of action. On rare occasions, he invoked a "superabundance of caution" for emphasis. This culture of caution permeated throughout the senior levels of the association, among both staff members and elected officials. In 1977, for example, executives of software companies were engaged in informal discussions as part of one of Larry Welke's ICP Million Dollar Awards Programs. An unnamed executive suggested that the group consider discussing the pricing of software products, at which point John Imlay, an active ADAPSO member, immediately challenged the suggestion, warned those present of their legal peril, and threatened to walk out if the speaker continued.[5]

Much of the value of ADAPSO clearly came from the informal social exchanges it fostered. One of the more formal, and costly, efforts it undertook to share successful practices between members was its *Contracts Reference Directory*, a series of annotated model legal agreements published from 1979 onward, and encompassing documents such as the "Professional Services Agreement," "Exclusive Distribution Agreement," and "Computer System Agreement with End User."[6] These were based on a survey of contracts used by ADAPSO members and were heavily annotated with a variety of alternative and optional clauses. This was in part to avoid the antitrust issues raised by promulgation of a single contract.[7]

Why were competitors in the software field so willing to share the secrets of their own success? A review of recent comments made by some of the participants suggests two main reasons. First, no single firm had come up with an entirely satisfactory answer to all the questions around selling software. By sharing the different pieces of the puzzle, they collectively prospered. As ADAPSO member Larry Welke put it, each member "had come up with a brand new idea or a new thought or a new concept or a new approach to the market and they were respected for it."[8] Furthermore, firms were not sharing their source code, or new product ideas, or other things they saw as their core business assets.

Second, while ADAPSO represented most of the important software product firms, this did not mean that its members necessarily saw each other as their primary competition. Most firms had only a handful of successful products, and thus competed in only a few niches. Even within these niches, their true competitor was often the existing programming team within the data processing department they were trying to sell to. This was especially true for those selling standard application programs, for tasks such as payroll processing and accounting. Welke believes that this is one reason system software, which generally helped application programmers and performed tasks for which no existing in-house system existed, was a much easier product to sell than application software.[8] Working together, ADAPSO members raised the profile of the software industry, improved its image, and legitimized it to data processing managers.

Collective action also promised to help in dealing with

the other main competition for independent packaged software firms: mainframe manufacturers. Long after IBM began to unbundle its hardware and software, it remained the largest supplier of packaged software. IBM had its own products in several areas, such as database management, and had the resources to compete in other niches such as source code versioning tools. Many software product firms were acutely conscious of owing their continued success to the whims of IBM, and to the consent decrees and the threat of further antitrust actions by which its actions had been restrained. Lee Keet, founder of Turnkey Systems and an active ADAPSO member during the 1970s and 1980s, believed that the role of IBM as a "common enemy was a very helpful thing" for ADAPSO, because "trade associations don't work too well unless there is an enemy to fight."[9]

Regulation of competitors

Relationships with accounting firms emerged during the 1970s as a major topic. From the 1950s to the 1990s, consulting work provided an ever greater flow of revenues to major American accounting firms, until it eventually displaced auditing as their main business. This provided direct competition to ADAPSO member firms providing professional services. When accounting firms undertook an audit of a public company, they developed a rapport with its top managers and a deep familiarity with its needs and operations.[10]

An ADAPSO CPA Relations Committee was founded in 1970 and remained throughout the rest of the decade. David Campbell of the Computer Task Group was particularly active in this area. The committee held long-running discussions with the American Institute of Certified Public Accountants on auditing and marketing issues and pursued software accounting issues with the Federal Accounting Standards Board from 1973 onward. It also lobbied the US Securities and Exchange Commission to restrict the marketing of services by auditing firms. According to a mid-1970s position paper devoted to the topic, "Coercion should be presumed and an unlawful tie-in held to exist whenever a Certified Public Accounting firm offers computer services. …" It went on to observe that

> Certified Public Accounting firms have no uniquely proven or measured competence in the field of providing computer services … the aura of license and established competence is ultimately and unjustly transferred to these services.[11]

ADAPSO's resistance ultimately did little to slow the trend toward the increasing reliance of auditing firms on consulting services. In retrospect, some former ADAPSO members active in the software services area felt that they faced less direct competition from CPA firms than they had feared.[10] Because of their special relationship with clients, accounting firms worked primarily on projects that might never have been trusted to upstart independent firms. They might also have helped to legitimate the computer consulting field as a whole. Relations improved over time, with leading international accounting firm Arthur Andersen eventually becoming an active member of ADAPSO.

Action against banks seeking to offer data processing services continued during the 1970s, with several lawsuits and lobbying of the US Senate Committee on Banking, Housing, and Urban Affairs. Perhaps surprisingly in retrospect, the association focused on issues raised by what it called the "checkless/cashless society" and the implications of electronic funds transfer for bank regulation. A 1976 position paper called this "certainly now the most important part of the struggle" against unfair competition.[12]

Wessel and the ADAPSO legal team eventually came to view this as another example of the same general problem posed when banks offered data processing services or when telecommunications firms attempted to sell computer access. In each case, firms whose main business was in a regulated industry legally protected from competition (in this case, the auditing of public companies) were trying to exploit their core business advantages to compete in unregulated markets.

Wessel called this "incremental marketing" and through many years and different cases worked to establish legal recognition that it amounted to an unlawful tying effect between separate products and services, even though customers were choosing without coercion. He called for acceptance of a "principle of maximum separation," stating that any subsidiaries set up by banks, accounting, or telecommunications firms to market computer services should be entirely independent from their parent businesses. This meant "separate facilities, separate personnel, separate name, and whatever other separation is necessary to prevent the spillover of economic power from one separate line of commerce to another." These ideas were set forth as official ADAPSO policy in two position papers, the 1972 "Incremental Marketing of Computer Services as an Unlawful Sale" and the 1976 "The Incremental Marketing of Computer Services Generally."[13]

ADAPSO in the 1980s and beyond

At the start of the 1980s, ADAPSO seemed stronger than it had ever been. In retrospect, however, the association's reliance on major mainframe software firms and time-sharing companies placed it on the wrong side of history.

The association acted quickly to court microcomputer software companies. In 1982 it created three new sections. One of these was the Microcomputer Software Section. (The other two were the Integrated Systems/OEM Section and the Professional Services Section.) The group attracted some of the better-known figures in the young industry, including Dan Fylstra (publisher of VisiCalc) and Mitch Kapor (founder of Lotus), both of whom served as ADAPSO directors in 1984.[14] Even Microsoft was a member, with William Neukom (Microsoft's vice president for legal matters), serving alongside high-profile industry analyst Esther Dyson on the 1988 section board.[15]

However, the cultural disparity between the young, unconventional personal computer enthusiasts and the older, more conservative members of the established sections exacerbated the inevitable tensions caused by differing business models between suppliers of personal computer and mainframe software. Microcomputer software suppliers perceived so-called software piracy as the most important issue facing them, but this was of little concern to members of the other sections.

While ADAPSO did produce a glossy 1984 booklet titled *Thou Shalt Not Dupe*, the association was reluctant to commit substantial legal resources to support the section in making examples of software pirates, setting standards for hardware copy protection devices, or challenging the practices of libraries renting software.

The Software Publishers Association, a new group focused exclusively on microcomputer software firms, was more aggressive in these areas and so won the allegiance of many firms. In 1988, the Microcomputer Software Section was merged with the Software Products Section (itself a renamed Software Industry Association Section) to form the Software Industry Section.

During the 1980s the association continued to address the same issues of unfair competition it had always been concerned with, playing a part in the battles over the deregulation of the telecommunications industry. It also focused on its relationship with IBM, including several controversies relating to IBM's apparent rebundling of certain software products and restrictions on its access to source code.[16]

ADAPSO's growth slowed, and eventually reversed itself. By the mid-1980s, the number of mainframe software firms was falling as companies such as Computer Associates and Sterling Software gobbled up smaller firms selling niche products. With the market for online computer time largely replaced by local minicomputers and personal computers, traditional time-sharing firms were being absorbed by other businesses interested in building networks or online services.

ADAPSO also found it increasingly difficult to attract and retain small professional service firms as members, in part because the association was seen as having sided decisively with the interests of the industry's larger firms. One tangible example of this came with the Tax Reform Act of 1986. The association endorsed a special change (known as Section 1706) made to the tax code on behalf of large consulting firms and temporary employment agencies to prevent freelance programmers and analysts from enjoying the same right to work as independent contractors enjoyed by specialists in most other fields. Leadership changes also played a role in the association's loss of momentum. Dreyer left the association in 1986, and his immediate successor proved neither popular nor effective.

In 1991, ADAPSO was renamed the Information Technology Association of America. Building on its proximity to Washington, D.C., and the growing political clout of the IT industry, it has since enjoyed considerable success in a new and narrower role, focused on lobbying and policy issues. Today, ITAA boasts more than 500 member companies. Although it organizes some networking events, these too are focused mostly on government relations and legislative topics. Meanwhile, its original role as an informal gathering place for newer, relatively small businesses to learn from each other on a variety of topics has been replaced by a profusion of smaller groups focused on particular geographical regions or industry segments.[17]

References and notes

1. T. Haigh, "ADAPSO and the Service Bureau Industry, 1961–1968," *IEEE Annals of the History of Computing*, vol. 26, no. 1, 2004, pp. 75-85 and T. Haigh, "ADAPSO, Time-Sharing Firms, and Software Companies: 1968–1975," *IEEE Annals of the History of Computing*, vol. 26, no. 1, 2004, pp. 67-73.
2. Wessel usually argued vigorously in favor of allowing competitors to join. In July 1972, for example, he advised that IBM should be allowed to join ADAPSO at a time when software section mainstay Marty Goetz favored amending the

association's bylaws to deny it even associate membership. M.R. Wessel, "Letter to Larry Welke, July 13, 1972," ADAPSO Records (CBI 172), Charles Babbage Inst. (CBI), Univ. of Minnesota, Minneapolis. Hereafter this collection will be referred to as CBI 172.

3. M.R. Wessel, "Memorandum to ADAPSO Officers and Directors on Application of the Federal Antitrust Laws to ADAPSO's Activities," 1966, Milton R.Wessel Papers (CBI 120), CBI. Hereafter this collection will be referred to as CBI 120.
4. The roundtable series was discussed recently by participants in L. Johnson, ed., "Industry Roundtables Workshop," *ADAPSO Reunion Transcript, May 2–4, 2002*, iBusiness Press, 2003, pp. 215-319.
5. T. Farewell, "Letter to Milton Wessel, March 29, 1977," CBI 120.
6. A copy of the contracts reference dictionary is preserved in CBI 172.
7. L. Johnson, ed., "Contracts Reference Directory Workshop," *ADAPSO Reunion Transcript, May 2–4, 2002*, iBusiness Press, 2003, pp. 257-293.
8. L. Welke, oral history interview by T. Haigh, 3 May 2002, OH 369, CBI, p. 14.
9. L. Keet, oral history interview by P.L. Frana, 3 May 2002, OH 341, CBI, p. 14.
10. L. Johnson, ed., "Big Eight Accounting Firms Workshop," *ADAPSO Reunion Transcript, May 2–4, 2002*, iBusiness Press, 2003, pp. 209-236. The apparently fluid line between software products and services led several accounting firms to attempt to enter the packaged software business during the 1970s.
11. "ADAPSO Position Paper: Incremental Marketing of Computer Services by Certified Public Accountants as an Unlawful Tie-In Sale," CBI 172, not dated.
12. "ADAPSO Position Paper: The Incremental Marketing of Computer Services Generally," 24 Feb. 1976, CBI 172.
13. Both of these position papers are to be found in the bound volume "ADAPSO Position Papers" in CBI 172. Wessel explored similar ideas in a number of books and articles, including B. Gilchrist and M. Wessel, *Government Regulation of the Computer Industry*, AFIPS Press, 1972.
14. *1984 Annual Report*, CBI 172.
15. ADAPSO Microcomputer Software Association (MCSA) board meeting, 21 Feb. 1988, CBI 172.
16. The story of IBM's relationship with ADAPSO in the 1970s and 1980s is explored in M. Goetz, "Memoirs of a Software Pioneer: Part 2," *IEEE Annals*, vol. 24, no. 4, 2002, pp. 14-31.
17. The later careers of both Larry Welke and Rick Crandall show some of the new groups that emerged to facilitate interaction between business leaders in the field. T. Haigh, "Biography: Larry A. Welke," *IEEE Annals*, vol. 26, no. 4, 2004, pp. 85-91; T. Haigh, "Biography: Richard L. (Rick) Crandall," *IEEE Annals*, vol. 26, no. 4, 2004, pp. 79-85.

Lawrence J. Schoenberg

Lawrence Schoenberg was the founder and longtime head of the computer firm AGS, a programming services firm that grew from acquisitions into a range of areas including packaged software and microcomputer distribution. He spent 20 years on the ADAPSO board and has the unique distinction of having served as head of three of its sections: Software Products, Professional Services, and Information Systems Integration. Schoenberg served ADAPSO in many capacities from the late 1970s into the 1990s, including a term as its chair. He was influential in developing and negotiating the association's positions on financial and accounting issues.

Early career

Schoenberg grew up in the Bronx, the only child of a family of teachers. After what he recalls as a competent but uninspired high school performance, he entered the University of Pennsylvania. After graduating in 1953, he was drafted into the army, serving for two years in New Mexico with the US Army Signal Corps. During this time he had his first exposure to computing.[1]

Upon his release from the army, Schoenberg attended Wharton where he studied intensively and earned an MBA in one year. He then applied to IBM and, on the basis of its celebrated aptitude test, was assigned to work as a programmer in its midtown Manhattan headquarters. Schoenberg threw himself into the arcana of early computing, writing systems routines for the large IBM 700 series vacuum tube machines.

His next job was with the Litton Industries conglomerate, then attempting to compete in the low-end computer market with its Monrobot. The Monrobot too required skilled low-level programming, but because Litton did the work necessary to tailor the machines to specific tasks, he was now brought into contact with customers and business systems analysis for the first time. In 1961, Schoenberg went to work in the New York offices of the Computer Sciences Corporation, then focused on systems software development for computer

manufacturers. The New York office did not thrive and was closed down two years later. Work as a subcontractor for John Diebold, a principal in an unsuccessful systems software startup, and as a community college computer science department chairman followed in quick succession.

Creation of AGS

In 1967, Schoenberg joined Joe Abrams, a fellow resident in his New Jersey apartment complex, to create AGS Computers. The name stood for Abrams, Graf, and Schoenberg (in the end, Graf was not involved with the company's work). For a while the firm struggled to attract consulting business, picking up some jobs such as an early containerization project for U.S. Lines. Reaching potential customers was a real challenge, which the partners attempted to address by running technical seminars for the data processing directors of New York companies. Schoenberg believes that by 1970 it had around 20 employees and revenues of approximately a million dollars a year. In 1969 it made a small initial public offering, joining other computer services firms during the "go go years" for computer company stocks. Schoenberg views this as an action driven by "a combination of ego and perception among customers," which "didn't really do much for anyone."[2]

At the beginning of the 1970s, AGS attempted to enter the emerging market for packaged software. This met with little success, though some products, including a report generator and test system, were used within AGS, or formed the basis for repeated sales of applications in related areas. The packaged software initiative, and a number of other ventures into areas such as optical scanning and training, fell victim to the recession of 1970–1971, which wiped out many of AGS's larger competitors.

When growth resumed in 1972, AGS began to diversify into new areas of business. It developed a niche in back-office systems for brokerage firms and tackled other administrative projects for banks and communications companies. Continuing its involvement in system software, the firm engaged in security-related operating systems projects for IBM and systems projects for Bell Labs. Schoenberg lived in Murray Hill, New Jersey, close to Bell Labs, which became his biggest customer. He suggests that the firm "did a lot of the original Unix development" under contract, and that AGS at one point employed hundreds of programmers working on the system.[3] By the end of the 1970s, the firm had 300 employees and revenues of around $14 million.

Background of Lawrence J. Schoenberg

Education: University of Pennsylvania: AB (economics and statistics) 1953; MBA, (accounting), 1956. **Professional experience**: US Army Signal Corps, 1953–1955; IBM: systems programmer, 1956–1959; Litton Industries: systems programmer, 1959–1961; Computer Sciences Corp.: consultant, New York office, 1969–1963; Automation Sciences: vice president, 1964–1966; AGS Computers: cofounder and president, 1967-1982; chairman, 1982–1991. **Directorships**: GTSI (1989–present); Merisel (1989–present); Cellular Technical Services (1995–present); SunGard Data Services, (1997–2002); Government Technology Services; Merisel, (1989–present); Nynex Information Systems Group (1988–1991); Penn America Group (1993–1987); Softswitch; Systems Center, (1985–1993). **Honors and awards**: Honorary doctorate in humanities, Dickinson College, Carlisle, Pennsylvania, 1999.

ADAPSO involvement

AGS entered ADAPSO in early 1974, with Schoenberg as its representative.[4] His first recorded role within the organization came in 1977, when he served as one of four members of a new Organization Committee chartered to find solutions to the association's perennial problems of sectional structure, board organization, and fractionalism.[5] From 1978 onward he was a fixture of the association's committees and leadership. In 1978 alone he was a director of ADAPSO, chair of its Membership Committee, and vice president of its Software Industry Association section (representing suppliers of packaged software and programming services). In 1979, he was ADAPSO treasurer and president of the Software Industry Association, and during the 1980s he served numerous terms as a director of the association and chaired many of its committees. Schoenberg became chairman of the board and chief executive officer of ADAPSO (a new name for its president) in 1982.

During the 1970s, he worked to bring more professional services firms into the association, feeling that he and his competitors had sufficient common ground to make shared action on topics such as state sales taxation a sensible strategy. These efforts culminated in the creation of a Professional Services section, of which he became the first president. According to Schoenberg, the original project of this section was to defeat an attempt by New York State to tax computer services. Energized by success on this topic, the new section addressed a number of other issues, including software capitalization, competition from public accounting firms, and other accounting and tax issues. The section was also active on labor issues such as the classification of programmers

as independent contractors and the granting of visas for technical workers.[6]

In 1991, Schoenberg headed ADAPSO's newly formed Information Systems Integration section. Schoenberg recalls that this section represented the interests of large services firms, particularly those focused on the federal government market. The unique diversity of his involvement helped Schoenberg make connections between the sometimes squabbling sections of the association.

Growth and sale of AGS

From around 1979 onward, AGS began to grow rapidly through acquisitions. Despite AGS's previous lack of success with packaged software, by the early 1980s Schoenberg had been convinced by his experiences with ADAPSO that the time had come to try again. This time, however, he resolved to acquire high-quality programs rather than assume the high risk of failure associated with in-house development. Each acquisition brought the company a customer base and a team of expert developers as well as the product itself. These acquisitions focused on niche markets, such as Atlantic Software for its project management, and other firms for banking and brokerage systems.

Chief amongst its new businesses was a microcomputer distributor called Micro Distributors. AGS purchased it in 1981 because of its expertise in telemarketing, a distribution channel Schoenberg believed was the only economical way of reaching the many thousands of potential new customers scattered across large firms. A similar and larger acquisition, the privately held Microamerica, followed in 1983 for $5.3 million.[7] Revenues from this business soon reached several hundred million dollars, making it America's largest distributor of microcomputer products.[8]

In March 1988, Schoenberg suggested that he expected revenues to approach $700 million that year, and set a target of $1 billion by the end of the decade.[9] In June, however, the deal was dramatically canceled as AGS was sold for $275 million to Nynex, one of the regional Bell companies created by the breakup of AT&T.[10] Like other telephone companies of the period, it was awash with cash and convinced that the coming era of convergence between voice and data meant that it needed to get into the computer business. Nynex disposed of AGS and its other information services operations in 1993 to Keane, Inc. for around a third of what it had paid.[11] The microcomputer distribution business was not included in the Nynex deal, instead briefly becoming a separate public company before merging with Softsel Computer Products in 1990 to form Merisel.

Recent activities

Since selling AGS, Schoenberg has built on the professional relationships he developed through AGS and ADAPSO to serve as an external director of many public companies in the computer field. He has also served as a trustee of several nonprofit organizations, among them Dickinson College, Carlisle, Pennsylvania, and a long spell as chairman of the board of overseers of the University of Pennsylvania libraries. At Penn he underwrote the creation of the Schoenberg Center for Electronic Text and Image, a digital library providing virtual facsimiles of rare books. Schoenberg is a trustee of the Charles Babbage Institute and recently became a trustee of the Computer History Museum in Mountain View, California.

References

1. These facts are drawn primarily from L.J. Schoenberg, oral history interview by M. Campbell-Kelly, 3 May 2002, OH 343, Charles Babbage Inst. (CBI). In the remainder of this article, otherwise unattributed information is derived from this source.
2. CBI OH 343, p. 15.
3. CBI OH 343, p. 17 for the quotation. In a private communication with me on 9 Jan. 2005, Schoenberg suggested that AGS once had 500 programmers working on Bell Labs projects, primarily Unix.
4. ADAPSO, "Board Minutes," 10 Feb 1974.
5. ADAPSO, "Board Minutes," 17 Apr. 1977.
6. Private communication from L. Schoenberg, 7 Jan. 2005.
7. "Information Bank Abstracts," *Wall Street J.*, 15 Mar. 1983, p. 8.
8. L. Cauley, "Nynex to Sell Most of AGS, Take a Charge," *Wall Street J.*, 5 Nov. 1993, p. B3.
9. D. Cuff, "AGS Founder is Closer to Billion-Dollar Goal," *New York Times*, 7 Mar. 1988, p. D4.
10. P. Farhi, "Til Other Offer Do Us Part: C3 Inc. Finds Clue Why Suitor Strayed," *New York Times*, 11 Jun. 1988.
11. D.P. Levin, "More Information Units Will Be Sold By Nynex," *New York Times*, 5 Nov. 1993, p. D4.

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