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Professional Biography

Employed at IBM's T.J. Watson Research Center 1978-2013

- Program Director for IBM's Blue Gene Watson supercomputer center
- Department Manager, Visual Technologies
 - data visualization, 3D graphics, image processing
- Manager, Image Library Applications
 - digital libraries, with high-quality imaging and digital rights management, often for web sites of cultural institutions; the National Gallery of Art (USA), the Vatican Library, the State Hermitage Museum, the Egyptian Museum in Cairo
- Manager, Signal Processing Applications
 - signal processing theory, applications, hardware
- > PhD in EECS from Princeton
- > Employed at CTEC an operating telephone company
- **BSEE from Rutgers**
- > IEEE Fellow
- > over 60 papers
- > over 25 patents





Professional Biography

the Vatican Library project

- Project began in 1993
- **Goal:** to investigate whether digital images, distributed through the Internet, could serve as source materials for scholarly research
- Team: includes the Vatican Library, the Pontifical Catholic University of Rio, IBM, and Case Western Reserve
- A scholarly user community
- Accomplishments
 - first significant collection on the web; 20,000 high-res images online in 1995; 50,000 highres images eventually online



the State Hermitage Museum project

nima. Italy. Fifteenth century

w loc onv/exhibits/vatican/images/nature04 in

- web site and multimedia education center
- "best of the web" award

the Eternal Egypt project

- with Egyptian Museum in Cairo, CULTNAT, others
- web site with 3D objects





Selected IEEE Activities

- > VP of Technical Activities 2012 / IEEE BoD
- > Division IX Director 2008-09 / member IEEE TAB / IEEE BoD
- > Pres. of IEEE Signal Processing Soc. 2004-05 / member IEEE TAB

> Finance

- Finance Chair ICIP95, VP Finance for SPS a financially-sound society
- IEEE Audit Committee, IEEE Insurance Committee, IEEE Investment Committee, IEEE Marketing and Sales, IEEE Employee Benefits and Compensation (Chair)

> Publications

- helped create IEEE Trans. on Info. Forensics and Security; helped add language processing to scope of – IEEE Trans. Audio, Speech and Language Processing
- Charter EIC, IEEE Technical Community Spotlight a new every-member publication
- Conferences
 - Finance Chair of ICIP95, Tech Co-chair of 1984 DSP workshop, SPS Conf. Board
- Membership
 - Membership Development Committee, Alternate Membership Models Ad Hoc(s), Membership Models Ad Hoc, MGA SDEA
- > Strategy
 - as SPS's P-E, developed interlocks between SPS' LRP and operations
 - As TAB VP, initiated TAB Long Range Planning ... new Mission and Vision statements resulted with focus on technology-centric worldwide communities
 - TAB Strategic Planning (Chair), IEEE NIC; TAB Awareness and Branding Ad Hoc (Chair)



My focus if elected

Strengthening IEEE technical communities

By **technical communities**, I mean teams of colleagues working together to advance a common interest, which might be a technology, regional meetings, a publication, a conference, a standard, an educational activity, a humanitarian project – or one of many others.

All IEEE OUs rely on the work of their technical communities to fulfill their mission and the IEEE mission

Participating in IEEE technical communities delivers great value to the community members, including personal and professional growth.

Some audiences are of special interest

- Industrial employees/practitioners
- Young professionals
- Author/Researchers
- Tech Professionals in emerging economies



My focus if elected

Strengthening IEEE communities – some envisioned efforts

- 1. Expand emerging technology efforts
 - Increase their availability, especially beyond Technical Activities
 - To better serve industrial employees and early-career members
- 2. Develop a strong set of Professional Productivity and Collaboration Tools
 - Collaboration tools for better community organization & management
 - Nurture participant interactions which provide so much value
 - More nimble operation to expand community participation
 - Communities may be pre-populated or populated by self sign-up
 - Communities may be member-only or open to nonmembers
 - Expanded IEEE use of Social Media which also better serves early career members
 - Better authoring/researcher support tools to bind our author community to us



My focus if elected

Strengthening IEEE communities – some envisioned efforts

- 3. Enhance our magazines and newsletters
 - More focus on technical content of industrial interest
 - Greater interactivity
 - Supplemental materials
- 4. Expand our humanitarian efforts
- 5. Develop crisper value propositions for important audiences



Some Recent Contributions

Strengthening IEEE communities - activities strengthening TA technical communities

- As TAB VP increased TAB support of Future Directions activities
 - To better support industrial employees and early-career members
- > As VP TA initiated TAB Long Range Planning effort
 - New TA mission statement Inspire, Foster and Empower Technology-Centric Worldwide Communities - shifted emphasis from products and services to TAB communities
- > While VP TA enabled **community self-registration** for FDC activities
- > As VP TA initiated **Membership Models Ad Hoc;** this resulted in:
 - Society membership experiment
 - IEEE Technical Community Spotlight a free every-member publication which provides all IEEE members with magazine articles on topical technologies and information about participating in Future Directions communities

Some Recent Contributions

Strengthening IEEE communities - activities strengthening TA technical communities

- > As TAB VP created **TAB Hall of Honor** a new recognition
- Later ... at VP's request created and chaired Ad Hoc on TAB Awareness and Branding
 - TA Value Proposition helping members remain technically current; the many (personal and professional) benefits of community participation
 - New opportunities for more effective magazines, newsletters
 - New Opportunities for use of China Social Media
- > While VP TAB adopts three-pronged Open Access strategy







never underestimate the power of communities

www.FredMintzer.net



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