The goal of this three phase / three year effort was to characterize the state of the foundational science of “reliance” and “influence” by drawing on foreign expertise and research findings to broaden the research base in support of US national security and defense.

The specific objective of the effort were

1. To understand and leverage state of the art research and data on the dynamics and effects of “Reliance”, “Trust” and “Influence” and on culture, society and military effectiveness
2. To facilitate the generation of scientifically viable ideas and proposals for supported research on this phenomenon.
3. To foster development of a sustainable international Trust & Influence Research Community of Practice
4. To assist in development and rationalization of an International Research investment strategy.

Phase one (6 months) was focused on building an international expert network. To accomplish this involved identifying key thought leaders and institutions driving this research outside of the US. An initial search resulted in a sizable sample (~100) globally distributed researchers from across the behavioral, social, political, anthropological and computer sciences. Further search using online tools including Google Scholar and Web of Science provided CVs, citations, publications and data useful to culling this sample to a smaller set. These individuals were, in turn, engaged online to assess their level of interest in collaborating with or conducting sponsored research for the AFOSR.

Those willing to interact were further interrogated about their current work, future directions and interest in engaging in answering fundamental research questions of specific interest to AFOSR. After consultation with AFOSR, a smaller even smaller subset of these investigators were invited to submit brief whitepapers that elaborated specific research questions of potential mutual interest. Papers were received from the individuals shown in Table 1 and were evaluated for quality and their option value to the USAF and DoD. Those ideas and concepts deemed of high value led to requests for proposal with the expectation that proposals received would be submitted into the AFOSR competitive granting process.

In November 2014, Site visits were made to prospective and some existing grantees in Singapore, Malaysia and Japan. Phase 2 of this effort was to commence on Nov 28, but was not contracted due to an administrative determination to terminate this effort. As a result, no further progress was made by Socio-Technical Sciences and all correspondence with prospective grantees as actions in progress were conveyed to the appropriate PMs at AOARD.
FINAL REPORT

FA2386-14-1-4083

Social Cultural Dynamics of
Trust, Influence and Persuasion

Kenneth R Boff, PhD
Principal Scientist, Socio-Technical System Sciences
8260 Barton Farms Blvd
Sarasota FL, 34240
Social Cultural Dynamics of Trust, Influence and Persuasion

INTRODUCTION:
The goal of this three phase / three year effort was to characterize the state of the foundational science of “reliance” and “influence” by drawing on foreign expertise and research findings to broaden the research base in support of US national security and defense.

OBJECTIVES and APPROACH:
The specific objective of the effort were
1. To understand and leverage state of the art research and data on the dynamics and effects of “Reliance”, “Trust” and “Influence” and on culture, society and military effectiveness
2. To facilitate the generation of scientifically viable ideas and proposals for supported research on this phenomenon.
3. To foster development of a sustainable international Trust & Influence Research Community of Practice
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Those willing to interact were further interrogated about their current work, future directions and interest in engaging in answering fundamental research questions of specific interest to AFOSR. After consultation with AFOSR, a smaller even smaller subset of these investigators were invited to submit brief whitepapers that elaborated specific research questions of potential mutual interest. Papers were received from the individuals shown in Table 1 and were evaluated for quality and their option value to the USAF and DoD. Those ideas and concepts deemed of high value led to requests for proposal with the expectation that proposals received would be submitted into the AFOSR competitive granting process.

In November 2014, Site visits were made to prospective and some existing grantees in Singapore, Malaysia and Japan. The itinerary is shown as Appendix 1.

Phase 2 of this effort was to commence on Nov 28, but was not contracted due to an administrative determination to terminate this effort. As a result, no further progress was made by Socio-Technical Sciences and all correspondence with prospective grantee as actions in progress were conveyed to the appropriate PMs at AOARD.
**TABLE 1: Trust & Influence Proposals**

<table>
<thead>
<tr>
<th>Title</th>
<th>PIs</th>
<th>Abstract</th>
<th>HU*</th>
<th>Cost/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling of harnessing of trust and influence in a cyberspace (MOHATIC)</td>
<td>Shu Heng Chen (Dept of Economics, Nat Chengchi U Taiwan), Akira Namatame, (Dept of CS National Defense Academy, Japan), Cheong Siew Ann (Dept of Physics, NTU, Singapore)</td>
<td><em>Investigates the factors that affect the availability and robustness of trust as a governance mechanism in a cyberspace.</em> Phase 1 Builds and validates a prototype agent-based model using field and internet data. Phase 2 scale up to include influence and cultural embeddedness &amp; use as a basis for studying the governance of trust &amp; influence in cyberspace. Phase 3: Validate using surveys, questionnaires and human studies.</td>
<td>Phase 3</td>
<td>$280K (50K, 120K 110K) over 2 years</td>
</tr>
<tr>
<td>Dissemination of opinions and ideas via complex contagion on social networks</td>
<td>Yoshihisa Kashima, Alex Stivala, Garry Robins (Dept of Psych, U of Melbourne) &amp; Michael Kirley (Dept of Computer Science, U of Melbourne).</td>
<td>Aims to develop methods for studying three inter-related questions. First, what is the structure of “cultural space”, the set of ideas, opinions, and attitudes held by individuals? Second, how do culture, ideas, and opinions spread through society, considered as people and their social relations, and how do different “cultural spaces” affect the processes of such diffusion? Third, related to the second question, we can ask “how (targeting which individuals) do we best spread innovations or compelling ideas through a social network?”</td>
<td>Prob no</td>
<td>2 year effort. 1 year sought July 2015- $69,450 AU = $61K US.</td>
</tr>
<tr>
<td>Patterns of Dehumanization and Humanization and the Development of Trust: Divisions Within and Between the Muslim World.</td>
<td>Noraini Noor (Dept of Psych, International Islamic U, Kuala Lumpur, MY), and Daniel Christie (Prof Emeritus, Dept of Psych, Ohio State U),</td>
<td>Addresses development of trust in muslim and mixed muslim-christian societies (i.e. Pakistan, Malaysia, UK, US and the Philippines). Will be examining at 1. How is the “Other” dehumanized or humanized in public discourse? 2. Are there qualitative and quantitative differences in the dehumanizing and humanizing statements in the different regions and over time? 3. How can social conditions of trust and cooperation be fostered and established, based on the humanizing statements?</td>
<td>NO Secondary/anonymous data only</td>
<td>$62K/1 year</td>
</tr>
<tr>
<td>Multilevel Comparisons on the Antecedents of Trust Among Team Members and Work Outcomes</td>
<td>Mei-Hua Lin and Michelle Lee, Sunway University, ML</td>
<td>This research explores the concept of mistrust in relation to trust and whether the role of mistrust is similar to that of trust in affecting work outcomes. Second, although trust &amp; trustworthiness have been found to affect work outcomes, the mechanisms of these relationships remain unclear. Here, we include team communication and organizational commitment as mediators of these relationships. Third, this research explores the antecedents of trust focusing on two levels of analysis: the team environment and individual differences. Lastly, previous research has found trust and trustworthiness to be different between in-groups and out-groups. This research examines whether the proposed conceptual model will be diff for those of in-group vs those of out-group. Hence, the overall goal is to provide a comprehensive view on the factors (team and individual level) influencing trust and trustworthiness and the mechanisms in which the trust process affects work outcomes.</td>
<td>YES</td>
<td>Year 1: $37K Year 2: $36K</td>
</tr>
</tbody>
</table>
| Science and society: Interactions between trust and ideology affect our orientation to science and the future | Iain Walker and Fabio Boschetti, CSIRO, Australia | We suggest: i) the functioning of a civil society depends not just on the level of interpersonal trust, but on how trust is distributed among human and non-human entities like institutions, norms and incentives; and ii) trust is inevitably interlinked to our attitudes towards the future. We propose developing and testing an analysis of how trust in institutions such as science, government, and the free market, interact to shape our orientation to the future and our acceptance or rejection of various science-based interventions. Our initial request seeks support for two early phases in our research program: a) further developing a detailed theoretical framework; b) running scoping studies involving 1 or 2 initial surveys and 1 or 2 focus groups. Focus group needs to be assessed as to whether falls under IRB. | Year 1= $67,233 AU = $58.3K US | This is a leadin to a 3 year program that will involve surveys and WSs that has not been cost estimated.
Appendix 1  Nov Asian Trip Itinerary

ASIAN TRIP
(Rev 3.0 Nov 2 2014)

Mon Nov 10:  SINGAPORE: National University of Singapore (NUS):
              1300  Ashley Fulmer  Department of Psychology  RM: AS4-02-27
              afulmer@nus.edu.sg  TEL: (65) 6516 7765
              1500  School of Sociology:  Trevor Penney (penney@nus.edu.sg)  &
                   Ya Hui Michelle See (psyshym@nus.edu.sg)  10 Kent Ridge
                   Crescent Rm  AS4#02-08 across from general office

Tue Nov 11:  Singapore: Nanyang Institute of Technology (NTU):
              1000  Soon Ang, Dir, Center for Innovation Research in Cultural
                   Intelligence & Leadership, Nanyang Business School. 50 Nanyang Ave,
                   Blk S3, Level One, Section C, Room 93.  Tel: (65) 6790-5993 (Lace)
                   ASANG@ntu.edu.sg
**1300 Rohan Gunaratna** Dir, The International Centre for Political Violence and Terrorism Research (ICPVTR) at the S. Rajaratnam School of International Studies (RSIS)

isrkgunaratna@ntu.edu.sg Irene Tan (secretary) +65 6316 8925
or Mr. Vikram at +65 6316 8928 (Receiving Officer)

**1600? Meeting + Dinner** Location TBD

Mark Woodward (Arizona State U), MARK.WOODWARD@asu.edu
Hani Mohamed, CEO, Alertist miss.hani.mohamed@gmail.com

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**Wed Nov 12**  
**SINGAPORE**

0830-1030 @Hilton meet with Hussein Abbass

10:45 @Hilton David Chan davidchan@smu.edu.sg

Lee Kuan Yew Fellow, School of Business, Singapore

Management University, (+65)6790 4717

1515 DEP SIN TR2458 ARR KUL 1615 tigerair

1630 Light Rail to HILTON KL

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**Thu Nov 13**  
**KL**

10-1300 Halimahtun Khalid, Dami Sciences LTD,  
Suite C-10-4, Wisma Goshen, Plaza Pantai,  
No 5., Jalan 4/83A, Off Jalan Pantai Baru,  
59200 Kuala Lumpur  
mahtunkhalid@gmail.com

1400 SUNWAY U. Mei-Hua Lin & Michelle Lee Dept of Psych, 
mhlin@sunway.edu.my

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**Fri Nov 14**  
**KL**

0830-1000 @Hilton Prof Noraini Noor reninoor@yahoo.com

1030-1200 Norhayati Zakaria & Shafiz Yusof  
College of Law, Government, and International Studies  
Universiti Utara Malaysia Sintok, 06010 Kedah Malaysia

1030-1130 Transport to, Kuala Lumpur

1430-1630 MIMOS (National R&D centre in Info and Comm Technologies (ICT))

David Wortley, davidwortley@hotmail.com  
Institute for Gamification and Enabling Technologies  
Mobile: +60 11 2318 0284 (Malaysia) Universiti Putra Malaysia in Selangor  
Possibly Rahinah Ibrahim and Normahdiah Sheik Said

TBD DEP for KUL (~45 min)

1900 DEP for Sing TR2465 DEP KUL ARR SIN@2010

Overnight @ Crown Plaza Chengi
Sat Nov 15  DEP @0610 UA 9674  (ANA 802) ARR Tokyo NRT 1400  
Bus to ANA- Taxi to Hardy Barracks Confirmation #34858

Sun Nov 16  FREE

Mon Nov 17  Tokyo  
0800-0900 AOARD. Visits to  
0900-1100 @AOARD Ryzo Yoshino, yoshino@ism.ac.jp  
1100-1230 Leave for NDA  
1230-1330 Lunch with Akiro Namatame  
1330- @ NDFA with Prof Namatame nama@nda.ac.jp

Tues Nov 18  Tokyo  
0800-0900 @AOARD  
0910-0930 Leave for Chiyoda Campus, Hitotsubashi U (20 min Taxi)  
0930-1130 Toshio Yamagushi, yamagishitoshio@gmail.com  
1300  @AOARD

Wed Nov 19  DEP Tokyo
APPENDIX 2

CURRICULUM VITAE

KENNETH R BOFF
CURRICULUM VITAE

Kenneth Richard Boff

8260 Barton Farms Blvd - Sarasota FL 34240
941-706-2455
krboff@gmail.com

POSITIONS:
• Principal Scientist, Socio-Technical Sciences 2009-
• Principal Scientist, Tennenbaum Institute, Georgia Institute of Technology 2007-2012
• Senior Technical Advisor, Asian Office of Aerospace Research and Development, Tokyo, Japan 2007-2010
• Independent Consultant 2007-
• Chief Scientist, Human Effectiveness Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH 1997-2007
• Director, Fitts Human Engineering Division, USAF Armstrong Lab, Wright-Patterson Air Force Base, OH 1991-1997
• Director of Design Technology, Aerospace Medical Research Laboratory 1988-1991
• Engineering Research Psychologist, Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, OH 1980-1988
• Research psychologist, AF Human Resources Laboratory, Wright-Patterson Air Force Base, OH 1977-1980

EDUCATION:
Ph.D. Experimental Psychology, Columbia University 1978
M.Phil. Experimental Psychology, Columbia University 1975
M.A. Experimental Psychology, Hunter College (CUNY) 1972
B.A. General Psychology, Hunter College (CUNY) 1969

PROFESSIONAL ACTIVITIES AND MEMBERSHIPS:
• Technical Advisory Board Member: Army Research Laboratory 2013 -
• Chair, National Academy of Sciences, Soldier Systems Panel 2013 -
• Advisory Board: Southeast Asian Network of Ergonomic Societies Conference, Lankawi, Malaysia 2012 -
• Panel Member: National Academy of Sciences, Soldier Systems Panel 2011-
• Technical Auditor, R&D portfolio of the Center for Behavioral Sciences, Liberty Mutual Insurance Co, Hopkinton, Ma 2010
• Panel Member: FAA Research Engineering Development Advisory Committee to assess cultural impacts of NextGen: The redesign and development of the Next Generation National Aerospace Management System 2010-2011
• Human Computer Interaction and Visualization Advisory Board, University of Kaiserslautern, GE (Annual meeting) 2007-2011
• Technical Reviewer, AFOSR MURI on Socio-Cultural Modeling 2008-2010
• Chair, International Workshop on The Etiology and Impact of Digital Natives on Societies, Culture and Commerce, Korean Advanced Institute for Science & Technology (KAIST). Taejon, SK. 2009
• Chair, International Work Shop on Culture: Affect, Behavior and Cognition. Langkawi, Malaysia 2008
• Chair, FAA Human Factors R&D Advisory Committee 2007-2009
• Steering Committee: International Federation of Automatic Control (IFAC) Seoul, South Korea 2006-2007
• Steering Committee: HCI International 2007, July, Beijing, PRC 2006-2007
• Associate Editor, Information-Knowledge-Systems Management Journal 2004-
• Editorial Board, Handbook of Human Factors, Wiley & Sons 2003-2005
• Steering Committee: HCI International 2005, July, Las Vegas NE 2004-2005
• Steering Committee; Intl Conference on Work with Computing Systems, Sarawak, Malaysia 2003-2004
• Steering Committee; International Symposium of Aviation Psychology, Dayton, OH 2002-2003
• Steering Committee: HCI International 2003, June, Crete, GR 2002-2003
• Co-Chair: RTO Symposium on the Role of Humans in Automated Systems. Oct 2002; Warsaw, Poland.
• Member, NATO Technical Group on Battle Space Visualization: Paris, Amsterdam 2000-2002
• Organizing Committee, Int'l Conference on Human-Computer Interaction in Aeronautics (HCI-Aero 2000); Toulouse, FR 1999-2000
• Chair, RTO Symposium on Usability of Information in Battle Management Operations. April, Oslo, Norway 2000
• Organizing Committee, IEEE Computer Society Symposium on Human Interaction With Complex Systems '00, Champaign-Urbana IL 1998-1999
• Steering Committee, 8th Computer Generated Forces Conf. Orlando Fl 1998-1999
• Director, Putting Technology To Work Workshop; Sinclair College 1998
• Steering Committee, HCI International '00 1998-
• US National Coordinator and HF Chair, NATO Research & Technology Organization (RTO), Human Factors and Medicine Panel 1997-2003
• US National Coordinator, NATO AGARD Aerospace Medicine Panel 1997
• Steering Committee, HCI –Aero 98; Montreal CA 1997-1998
• Steering Committee, IEEE Info Visualization 98 1997-1998
• Steering Committee, HCI International '99 1997-1999
• Steering Committee, 2nd Conference on IE Applications and Practices 1997
• Technical Advisor, IEEE Science, Engineering & Technology Congressional Visits Day (16-17 Apr 97)
• Advisory Committee, ASEAN Ergonomics 97, Kuala Lumpur, Malaysia 1996-1997
• Steering Committee, IEEE Visualization 97. Phoenix AZ 1996-1997
• USAF Principal Member, Human-Centered Systems Committee, National Science and Technology Council (NSTC) 1996-
• Steering Committee for Establishment of Ohio Regional Center for Information Technology 1996
• Session Chair, Ergonomics Society Annual Conference on *Cognitive Quality in Advanced Crew Systems Concepts* (United Kingdom) 1996
• Editorial Board of *Handbook of Applied and Engineering Psychology* 1996
• Organizing Committee, IEEE Computer Society Symposium on Human Interaction With Complex Systems, Dayton OH 1996
• Chair, Organizing Committee NATO AGARD Symposium on Crew Collaboration, Oslo, Norway, 1996-1998
• Chair, Membership Committee; Human Factors & Ergonomics Society 1995-1997
• External Reviewer: Wright-State University Regional Strategic Plan 1995
• HSI Chair, DOD Infrastructure Review 1994
• Chair, DOD Human Systems Interface Panel 1994-1998
• Chair, Joint Directors of Labs Human Systems Interface Panel 1992-1994
• Chair, NATO AGARD Working Group 20 on 3-D Surface Anthropometry, 1992-1995
• Consultant, National Academy of Sciences/National Research Council: Panel on Human Error 1992
• Chair, Human Factors Committee, NATO AGARD, Aerospace Medical Panel 1991-1997
• Member, Scientific Task Planning Group for development of the Aviation Human Factors National Plan - Federal Aviation Administration 1990
• Steering Committee: International Conference on Human Factors in Design for Manufacturability and Process Planning. Honolulu, Hawaii 1990
• Member, NATO Defense Research Group, Panel 8 RSG on Human Error 1990
• Chair, Steering Committee for Crew Systems Ergonomics Information Analysis Center 1990-2003
• Peer Reviewer, member, IEEE Systems, Man, and Cybernetics Society 1987-1997
• Member, National Research Council/National Academy of Sciences: Sponsor Committee on Human Factors 1987-2004
• Member, Panel on Human Factors Specialist Utilization and Education National Research Council/National Academy of Sciences 1987-1990
• Member, Visual Simulation Committee of the Tri-Service Simulation Technology Advisory Group 1987-1989
• Review Board: USAF Air Safety Mishap Panel 1987-1989
• Chairman: Tri-Service Human Factors Technology Advisory Group (TAG):
  - Human Engineering Guidelines Committee 1987-1989
• Project Officer: Air Standardization Coordinating Committee Working 1983-1985
  Party 61 - Proj 113, Aeromedical Aspects of Vision & Visual Enhancement
• Reviewer, Applied Vision Association (UK) 1980-1986
• Peer Reviewer Human Factors & Ergonomics Society 1977-2007
• Consulting and critical program review for NASA, FAA, Army Research Institute, Army MANPRINT Office, and AF Aeronautical Systems Center

AWARDS AND HONORS:
• Presidential Rank Award (Nominated by the Secretary of the AF) 2007
• IEEE Senior Member 2004
• Edenfield Executive in Residence; Georgia Institute of Technology 2002-2004
• NATO Scientific Achievement Award 2003
• NATO RTO/HFM Panel Excellence Award 2002
• Fellow, International Ergonomics Association (IEA) 2000
• Fellow, Human Factors & Ergonomics Society 1997
• Department of Defense, Certificate of Merit, Joint Logistics Commanders 1996
• Department of Defense, Technology Transfer Award 1993
• Directors Award, Armstrong Laboratory 1991
• Scientific and Engineering Technical Achievement Award, Air Force Systems Command 1989
• Best Paper Award - Human Factors Society 1988
• Meritorious Award for Program Management 1985
• Rank Prize award, Cambridge University, UK 1984
• Columbia University Graduate Fellowship 1972-1976

CITATIONS:
• Who’s Who in the USA
• Who's Who in America
• Who's Who in the World
• Who's Who in Science & Engineering
• Who's Who in Frontier Science and Technology
• Who’s Who of Emerging Leaders in America
• Who's Who in the Midwest
• Who’s Who in Society
• Dictionary of International Biography
• International Who's Who of Contemporary Achievement
• Personalities of America

SPECIALIZED TRAINING:
• Managing the Process Enterprise, Hammer & Co, Cambridge, MA 2004
• Vanguard Information Technology & Innovation Workshops 2000-2004
• Management of Technology & Innovation, CalTech, Pasadena CA 2002
• Understanding the S&T Enterprise, Brookings Institute, Wash DC 1999
• Marketing Management, WPAFB 1999
• Competitive Technological Intelligence, Georgia Institute of Technology 1998
• Seven Habits of Highly Effective People, Steven Covey 1998
• First Things First, Steven Covey 1997
• 101 Practices of World Class R&D Management, WPAFB 1995
• USAF Acquisition Professional Development Program, Level III 1994
• Public Policy Challenges Facing DOD, Brookings Institute, Wash DC 1994
• Leadership: Creating Opportunity with a Changing Workforce, WPAFB 1994
• Liberation Management, Tom Peters 1993
• Systems Engineering, AFIT, WPAFB, OH 1992
• Acquisition Management, AFIT, WPAFB, OH 1992
• Human Resource Management Today, American Management Association 1992
• Issues in Science & Technology for Science Executives, Brookings Inst 1990
• Total Quality Management, Deming 1989
• Advanced Human Factors Engineering, University of Michigan 1977

SIGNIFICANT ACCOMPLISHMENTS:

R&D Leadership & Management:
• Senior Mentor and advisor: AFRL International Program 2006-2007
encompassing technical agreements with 39 countries
• HE Chief Scientist responsible for quality and value performance of 1997-2007
  ~$200M/yr R&D portfolio.
• Established AFRL thrust on Revolutionary Human Optimization to 2005-2007
capitalize on advances in psycho-pharmacology, robotics and
  augmented cognition
• Conceived and established the Defense Cognitive Systems Engineering 2001-2007
  Center under the Dayton-based Wright Brother’s Institute.
• Chief of the USAF Armstrong Laboratory Human Engineering 1991-1997
  Division responsible for breakthrough advances in helmet mounted
  systems, night-vision systems and advanced crew station concepts.
  (VISTA Warrior, Nunn Amendment Program)
• Project Manager: US-Sweden MOU on Air Crew Protection and 1995-2007
  Performance
• Establishing and chaired tri-services/DARPA planning group for Human 1994-1995
  Systems Interface Technologies. Successfully fielded Master Plan for
  the $200M FY95 Program for OSD and Congress.
• Lead the formation of the joint service Reliance Human Systems Interface 1992-1997
  Technology Panel (HSI) and served as first Chairman
• Assembled and managed multi-agency consortia (including Army, Navy, 1980-1991
Air Force, NASA, FAA, and NATO AGARD) resulting in principal funding and support of four major research and analytic study projects.

- Conceived, proposed and founded the Crew System Ergonomics Info 1987-2006 Analysis Center (CSERIAC) at Wright-Patterson AFB. An internationally recognized, information and technology clearing house for DoD.

PATENTS AND PUBLICATIONS:


supporting design of complex human-machine systems. In C.T. Leondes (Ed.),


usefulness and usability of human engineering information in system design.
Proceedings of the 34th Annual Human Factors Society, Orlando, FL.

analysis center: A gateway for technology transfer. Technology Transfer in a Global

engineering information: The system designers’ perspective. Proceedings of the 42nd
National Annual Meeting of the IEEE National Aerospace and Electronics Conference,
Dayton, OH, 881-885.


engineered systems. In H. Booher (Ed.). People, machines and organizations: A
MANPRINT approach to systems integration, (pp. 551-572). New York, NY:
Van Nostrand Reinhold

performance. (Compact Disk Edition). Armstrong Aerospace Medical Research
Laboratory.

technology efficiency in a multi-task environment. Proceedings of the 32nd Annual
Human Factors Society, Anaheim, CA, 1395-1399.

applications: Development of the engineering data compendium. Proceedings of the
32nd Annual Human Factors Society Meeting, Anaheim, CA, 1021-1025.


Boff, K.R. (1988). The value of research is in the eye of the beholder. Human Factors
Society Bulletin, 31 (6), 1-4.


**CHAIRED WORKSHOPS AND PROFESSIONAL SHORT COURSES**

- Chair and prime organizer of the Workshop on “Understanding and influencing the causality of change in complex socio-technical systems. Queensland, Australia. Feb 2011.
- Senior Mentor: Interdisciplinary workshop on society, culture and language, University of Plymouth, UK. Nov 2010.
- Chair & Principal Organizer, The Etiology and Impact of Digital Natives on Societies, Cultures and Commerce. Korean Advanced Institute of Science and Technology (KAIST), Taejeon, SK. November 2009
- Chair & Principal Organizer, Culture: Affect, Behavior and Cognition. A Multi-disciplinary WS. Lankawi, Malaysia, December 2008
- Director, WS on Organizational Simulation, Clearwater, FL, December 2003
- Director, Strategies for Value WS. Atlanta GA, June 2001
- Director, Getting to Value: Enhancing Quality, Productivity and Innovation; Dayton OH, Nov 2000
- Director, Planning for Innovation WS; Stone Mountain, GA, Feb 2000
- Director, Putting Technology To Work Workshop; Sinclair College, Dayton OH, October, 1998
- Chair: *3-D Surface Anthropometry Working Group*. NATO AGARD, April 1993-1995
  - Wright-Patterson AFB OH, April 1995
  - Universite Rene Descartes a Paris, Paris, France, October 1994
  - National Research Council, Ottawa, Canada, April 1994
  - Escola Do Servico De Saude Militar, Lisbon, Portugal, October 1993
  - DKFZ, Heidelberg, Germany, April 1993
- Director: Short Course - *Human Factors: Case Studies & Applications in Engineering Design Crew System Ergonomics Information Analysis Center (CSERIAC)*. Dayton, OH; June 1990.
- Director: Short Course - *Human Engineering Design Considerations for Aircrew Station Modification*; NATO AGARD, June 1988.
  - Escola Do Servico De Saude Militar, Lisbon, Portugal.
  - War Museum. Athens, Greece.
Delft University of Technology. Delft, Netherlands.


**KEYNOTES, INVITED COLLOQUIA AND SPECIAL PRESENTATIONS:**


Invited Presentation: Challenges Implementing “Effective” HCIV Solutions in Complex Systems. Fraunhofer Institute, Kaiserslautern GE. March 2009

Invited Keynote Address: Complex Systems Perspective on the Revolution in Human Performance Optimization. Complex 2007, Gold Coast AU


Invited Speaker: MANPRINT: Transforming for the soldier workshop. Arlington, VA. 2004


Invited Capstone Speaker. How abstract is too abstract? How real is too complex? *CODATA Euro-American Workshop, “Visualization of Information and Data, Where are We and Where Do We Go From Here?”* Paris, FR. June 1997

Invited Speaker, EuroVis Symposium. University of Kaiserslautern, GE, June 1997


Colloquium: *Human Factors in the Wild: A Profile of the Fitts Human Engineering Division*. Wright State University, Departments of Human Factors and Computer Sciences, Dayton, OH, April, 1994.

Colloquium: *Usefulness and Usability of Human Factors Data*: University of Toronto, Canada, December 1993.


Colloquium: *Human Factors in System Design*. The HUSAT Research Centre,

Invited Address: *Integration of Human Factors Research with Systems Development.*


University of Tokyo, Komaba, Tokyo
University of Kyoto, Kyoto
University of Osaka, Toyonaka, Osaka
Aichi Institute of Technology, Toyota
Hosei University, College of Engineering, Tokyo
Hitachi Ltd., Kokubunji, Tokyo
Japanese Auto Research Institute, Tsukuba


Vernier Offset Resulting from Induced Visual Latency. *Association for Research in Vision*


