

# Society for Computers in Psychology



## 2001 Annual Meeting Summary Program

Thursday November 15, 2001

Coronado Spring Resort in Lake Buena Vista, Orlando  
Florida

[Registration form](#)

[President's  
Welcome](#)

[Steering Committee  
Meeting](#)

	CORONADO M & N	CORONADO P & Q	CORONADO R & S
8:00 am	<p><u>WEB-BASED INSRUCTION</u></p> <p>(Taraban,; Maki; VanWallendael; Bradshaw)</p>	<p><u>METHODOLOGICAL TECHNIQUES</u></p> <p>(Steward: Plant; Pastizzo; Sheu)</p>	<p><u>POSTERS</u></p> <p>(Kretschmar; Campbell; McCarley; Treadwell; Nunes; Stange; West; Reips)</p> <p><a href="#">Suggestions for Posters</a></p>
9:00			
10:00	<p><u>WEB-BASED RESEARCH</u></p> <p>(Birnbaum; Miller; Proctor; Wolfe)</p>	<p><u>INSTRUCTIONAL SOFTWARE</u></p> <p>(Malloy; Garbin; Dominicus)</p>	<p><u>POSTERS &amp; VENDOR DISPLAYS</u></p>
	<b><u>Invited Address: Raymond S. Nickerson</u></b>		

11:00	From Magnetic Cores to Pentium Chips: A Personal Retrospective on Computers in Psychology		
12:00	<u>LUNCH</u>		
1:00 pm	<u>SYMPOSIUM: PSYCHOLOGICAL DEMANDS OF LEARNING AND TEACHING ON THE WEB</u> (Wolfe et al)	<u>RESEARCH SOFTWARE &amp; TOOLS</u>  ( Bonebright; Baker; Baker; Magliano; Schmidt)	POSTERS & VENDOR DISPLAYS
2:00	<u>MODELING</u>  (Bremner; Conley; Robinson)	<u>RESEARCH &amp; TEACHING TOOLS</u>  (DeVitto; Munger; Gordon; Wolach)	POSTERS & VENDOR DISPLAYS
3:00	<u>Presidential Address: Sarah Ransdell</u>  Teaching a Laboratory Science in the Age of the Internet  <b>Invited Address: Dominic Massaro</b>  Developing and Evaluating Conversational Agents		
4:00			
5:00	Business Meeting		
6:30	E'Prime Workshop	E'Prime Workshop	

**Session 1**  
**WEB BASED INSTRUCTION**  
 CHAIR Thomas E. Malloy

**8:00 - 9:20 a.m.**

**Coronado M & N**

**8:00 The Decline of the 45-Hour Academic Work Week in College**

Roman Taraban, Texas Tech University

[roman.taraban@ttu.edu](mailto:roman.taraban@ttu.edu)

I present a historical summary of research on college students' study times spanning the period of 1923-1959 (the last available report) and generate an estimate of current study times at a typical university. The data suggest that students are allocating significantly fewer hours for course preparation. This is noteworthy in light of a first-order principle in psychology that learning takes time and important at the macro level for establishing instructional and research agendas and expectations about instructional outcomes.

**8:15 Multimedia Comprehension Skill Predicts Differential Performance in Web-based and Lecture Courses**

Ruth H. Maki & William S. Maki , Texas Tech University

[Ruth.Maki@ttu.edu](mailto:Ruth.Maki@ttu.edu)

Students who participated in web-based or lecture versions of an introductory psychology course were classified as high, medium, or low in comprehension skill based on a multi-media comprehension battery (MMCB). Students who scored low on the MMCB performed the same on tests of psychology knowledge in the two course formats. Students who scored in the medium to high range on the MMCB performed better in the web-based course.

**8:30 Web-Based Educational Materials: How Effective Are They?**

Lori Van Wallendael & Paula Goolkasian

University of North Carolina, Charlotte

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An interactive web site was used in lieu of a textbook in an interdisciplinary, undergraduate course in Cognitive Science. Student use of the website was tracked online as well as through self-report questionnaires throughout the semester. Students rated the website as highly readable and useful. Although class attendance was the single best predictor of students' exam performance, time spend online with the web modules was also significantly related to learning. Overall, 74% of the students rated the website as "more useful than" or "as useful as" a traditional textbook.

**8:50 Interactive Demonstrations and Experiments in Psychology.**

Gary Bradshaw, Bernard Steinman &amp; Nancy McCarley

Mississippi State University

[glb2@ra.msstate.edu](mailto:glb2@ra.msstate.edu)

The realm of the mind is mental processes: thinking is not an object, but an activity carried out by the brain. Traditional educational forums (classroom lectures, books) cannot readily depict the dynamic character of human thought; instead, they merely describe them. A new web site, ePsych, provides students with interactive demonstrations, experiments, and models designed to reveal our current understanding of the dynamics thinking. ePsych incorporates a number of indexes that allow for fast access to all material.

**9:10 Discussion****Session II****8:00 - 9:20 a.m.****Coronado P & Q****METHODOLOGICAL TECHNIQUES**

CHAIR Carvin P. Garbin

**8:00 Creating a Model for Use in Classification Decisions**

Rick Stewart, Colorado Mental Health Institute

[rsxyz@aol.com](mailto:rsxyz@aol.com)

(s), With psychological assessment, if you know (or assume) the mean, SD, skew and kurtosis and intercorrelation matrix of group 1 ("normal") and group 2 ("abnormal") and have client score it's possible to estimate the underlying distributions, and then calculate measures of client classification fit, such as ROC and positive predictive value at that client score.

**8:20 Towards an Experimental Timing Standards Laboratory**

Richard R. Plant &amp; Nick Hammond

University of York

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software The timing of events in studies of human performance increasingly relies on the use of tools running within complex software and hardware environments. With national research council backing, we have established the Experimental Timing Standards Laboratory and formulated recognised benchmarks for testing the timing characteristics of tools used by behavioural scientists for chronometric studies. We will outline these benchmarks and discuss our findings in relation to some of the commonly used packages

**8:40 Multi-Dimensional Data Visualization**

Matthew J. Pastizzo &amp; Laurie B. Feldman

University at Albany, SUNY & Haskins Laboratories, New York  
[mp1984@csc.albany.edu](mailto:mp1984@csc.albany.edu)

Historically, data visualization has been limited primarily to 2 dimensions (e.g., histograms, scatterplots). Newer software packages (e.g., SPSS© 9.0) are capable of producing 3D scatter plots with limited user interactivity. We will present an implementation of a multi-dimensional data visualization toolkit with an enhanced user interface. The graphical interface gives the user flexibility to dynamically explore the multi-dimensional image rendered from raw experimental data.

**9:00 Fitting Mixed-Effects Ordinal Regression Models with the NLMIXED Procedure.**  
 Ching-Fan Sheu, DePaul University  
[csheu@condor.depaul.edu](mailto:csheu@condor.depaul.edu)

Recently it has become common to use generalized linear models to analyze ordered categorical variables. Generalized linear mixed models in which both fixed and random-effects appear in the linear predictor inside a link function are newer and fitting these models has been restricted by the availability of specialized software. This paper presents the use of a new SAS procedure, PROC NLMIXED, to fit mixed-effects regression models of repeated ordinal data. Two examples illustrating the use this procedure are provided.

**9:15 Discussion**

**Session III**  
**WEB-BASED RESEARCH**  
 CHAIR Richard Plant

**9:40 - 11:00 a.m.**

**Coronado M & N**

**9:40 Probability Learning in the Lab and on the Web**  
 Michael H. Birnbaum & Sandra Wakcher, California State University, Fullerton  
[mbirnbaum@fullerton.edu](mailto:mbirnbaum@fullerton.edu)

In the classic, probability learning paradigm, the participant tries to predict the next outcome of a binary random variable. The strategy that optimizes the percentage correct is to always predict the more frequent event. Instead, people tested in lab or via the WWW tend to match their proportions of predictions to the probabilities of the outcomes. In an attempt to improve performance, we explored the effect of instructions concerning the optimal strategy

**10:00 Computer-Mediated Communication, Language and Gender in Educational Interactions**  
 Jane Miller & Alan Durndell, Glasgow Caledonian University, Scotland  
[j.miller@gcal.ac.uk](mailto:j.miller@gcal.ac.uk)

This paper describes a series of studies involving campus-based introductory psychology students using computer-mediated communication (CMC) to discuss course issues. It explores the role of gender in this context of CMC, using Atlas/ti 4.2 to qualitatively analyse discourse generated in computer conferences in terms of participation, language use and interaction style. The results are discussed in relation to previous research findings on gender and language in other contexts.

### **10:20 Influence of Restrictions on Password Generation and Recall**

Robert W. Proctor, Purdue University  
 Mei-Ching Lien, NASA Ames Research Center  
 Kim-Phuong L. Vu, Purdue University  
 E. Eugene Schultz, University of California, Berkeley  
 Gavriel Salvendy, Purdue University  
[proctor@psych.purdue.edu](mailto:proctor@psych.purdue.edu)

Two experiments examined generation and retrieval of passwords for user authentication under minimal and maximal restrictions. Results showed that adding restrictions greatly increased the difficulty of generating passwords. However, restrictions did not impede later recall for logging in because the generated passwords were relatively meaningful strings of characters. Since the passwords generated under maximal restrictions can be easily cracked, they may not improve the security of the username-password method by much.

### **10:35 Using NetCloak to Develop Server-Side Web-Based Experiments Without CGIs**

Christopher R. Wolfe, Miami University  
 Valerie F. Reyna, University of Arizona  
[crwolfe@miax1.muohio.edu](mailto:crwolfe@miax1.muohio.edu)

Server-side experiments use the Web server, rather than the participant's browser, to handle tasks such as random assignment, eliminating inconsistencies with JAVA and other client-side applications. Heretofore, experimenters wishing to create server-side experiments have had to write programs to create CGI's. NetCloak uses simple, powerful HTML-like commands. We used NetCloak to design and create a Web-based experiment on probability estimation. Without prior training we were able to and create a Web-based experiment in less than one month.

### **10:55 Discussion**

**Session IV**

**9:40 - 10:30 a.m.**

**Coronado P & Q**

## INSTRUCTIONAL SOFTWARE

CHAIR Roman Taraban

### 9:40 **Utah Shared Courseware: Freely available, Open Source Java Software for Building and Managing Online Courses.**

Thomas E. Malloy & Gary C. Jensen, University of Utah  
[malloy@psych.utah.edu](mailto:malloy@psych.utah.edu)

Utah Shared Courseware is a contribution to the emerging shared knowledge and open source community offering alternatives to commercial courseware and content. Utah Shared Courseware is a set of open code Java modules for building and managing online courses and class pages. It is designed by and responsive to teachers and is not driven by business plans nor beholden to investors. Teachers are invited to join in the Utah Shared Courseware use and evolution.

### 9:55 **Software for Web-based Delivery and Grading of Statistical Analysis Assignments**

Calvin P. Garbin, David DeWester & Kathy Shapley  
 University of Nebraska, Lincoln, NE  
[cgarbinL@unl.edu](mailto:cgarbinL@unl.edu)

We introduce software allowing instructors to simulate datasets, makes those data available on-line, corrects student's computations on-line ( $t$ ,  $X^2$ , between & within-groups ANOVA), and stores student's scores. Each student receives a unique dataset conforming to the particular data pattern selected by the instructor. The software can also be used as a simulator by instructors and students, to explore the influences of various sampling parameters upon the replicability of data patterns and NHST results

### 10:10 **Internet Peer Group Projects: Using Blackboard.com to Help Student Write.**

Dominicus So, Howard University  
[dso@Howard.edu](mailto:dso@Howard.edu)

To improve the students' sense of competence, camaraderie, and self-help, the use of the Blackboard Internet-based teaching platform is used to facilitate student peer review and collaborative writing. An undergraduate course utilizes online discussions, archived faculty responses, posted writing and feedback, and academic resource hyperlinks. Student feedbacks indicate smoother collaborations, increased accessibility, convenience, useful peer comments, confidence in Internet usage, knowledge of on-line psychological resources. Precautions and future directions for teaching and research are

suggested.

## 10:25 Discussion

### Session V

11:15 am - 12:10 pm

CHAIR: Sarah Ransdell

#### Invited Address:

Raymond S. Nickerson, Tufts University

[r.Nickerson@tufts.edu](mailto:r.Nickerson@tufts.edu)

#### **From Magnetic Cores To Pentium Chips: A Personal Retrospective on Computers in Psychology.**

Based primarily on the speaker's personal experiences as a user and observer of computers in research over 40 years, the talk will describe some of the earliest interactions between psychologists and computers, note developments that moved the technology from that of the early 60s to that of the present day, reflect on some of the major effects that the use of computers by psychologists have had on psychology as a science, and raise a question or two about future challenges.

#### 12:15 Lunch

SCiP Tables for lunch at the Pepper Market.

Let's meet for lunch at the SCiP Table To help us get to know one another we have reserved a set of SCiP Tables at the Pepper market food court in the hotel for lunch from 11:45-1:00. Come meet others working at the intersection of Computers and Psychology in a relaxed, informal environment. Lunch is on you (it is not included in the cost of the conference registration). It's a great way to meet the people doing some of the most interesting work in the field!

### Session VI

1:00 - 2:30 p.m.

Coronado M & N

#### **SYMPOSIUM: PSYCHOLOGICAL OF LEARNING AND TEACHING ON THE WEB**

CHAIR Christopher R. Wolfe

The Web places significant psychological demands on learners. Some demands of technology-infused instruction are rooted in mismatches between humans and machines involving learning and memory, ecological properties of perception, and individual cognitive, social, and personality differences. The Web also requires students to apply advanced literacy skills including integration of information across Web pages, evaluation of a site's sources, and corroboration of information across Web sites. Predicting the success of Web-based courses requires one to examine characteristics of individual students, the design of courses and specific outcomes. Finally, we will consider Web-based teaching practices and how they can be improved.

### **Psychological Demands of Learning and Teaching on the Web**

Christopher R. Wolfe, Miami University

[WolfeCR@muohio.edu](mailto:WolfeCR@muohio.edu)

Web Research presented in “Learning and Teaching on the World Wide Web” suggests that the Web places significant psychological demands on learners. These include demands arising from heterogenous information, demands for greater cognitive flexibility, and demanding social environments. The Web places burdens on the reader’s ability to connect new and existing knowledge. The heterogeneity of information leads to greater cognitive complexity. The Web requires cognitive flexibility and sometimes leads to social isolation. Potential solutions are proposed.

### **The Psychology of Human-Computer Mismatches.**

Valerie F. Reyna, Charles J. Brainerd, Judith Effken, Richard Bootzin &

Farrell J. Lloyd

University of Arizona.

mismatches Technology-infused instruction poses fundamental dilemmas for learners rooted in mismatches between the capabilities of humans and those of machines. There are four kinds of dilemmas: mismatches between properties of technology and (1) natural human learning and memory processes, (2) individual differences in cognitive characteristics of learners, (3) ecological properties of human perception and (4) individual differences in social and personality characteristics. Mismatches involving natural learning and memory processes are especially likely with Web-based instruction.

### **Developing the Ideal Student for a Web Based Course**

Margaret D. Anderson,

State University of New York at Cortland

[andersmd@snycorva.cortland.edu](mailto:andersmd@snycorva.cortland.edu)

number of In attempting to predict success in a web based course it is essential for us to examine a number of related components. The first critical element is characteristics of the individual student, the second the design of the course itself and the final element the actual outcomes. This paper presents a proposed cybernetic model that integrates these components and explores the effect of the feedback loops in the model.

### **Teaching Advanced Literacy Skills Required by the Web.**

M. Anne Britt, Northern Illinois University,

Gareth L. Gabrys, EnvoyWorldWide Inc.

[Britt@niu.edu](mailto:Britt@niu.edu)

to Despite hopes for the Internet to be an educational panacea, the web will also require students

depend on the application of advanced literacy skills. These skills include integration of information across web pages, evaluation of the site's source, and corroboration of information across web sites. We created the Sourcer's Apprentice to teach these skills to students over the web. We conclude with the presentation of the development principles and two effectiveness studies.

### **The Impact of the Web on Teaching, Learning and Assessment : A Survey of UK**

Nick Hammond & Annie Trapp,  
University of York, UK

[N.Hammond@psych.york.ac.uk](mailto:N.Hammond@psych.york.ac.uk)

Psychology We report two studies exploring how the Web is impacting current practice in the teaching in the UK, and reflect on some of the demands that use of this technology makes. The first study is a collection of case studies from departments, and the second is a questionnaire-based survey of usage. We propose a simple taxonomy of web usage and use this to categorize our findings. Both the pattern of development and the details of specific usage indicate that, to be effective, web-based learning can require changes in modes of working for students, teachers and departments and that the demands of these changes are not always met.

**Session VII** **1:00 - 2:00 p.m.** **Coronado P & Q**  
**RESEARCH SOFTWARE & TOOLS**  
CHAIR Frederick Bremner

**1:00 A Multi-modal Data Collection Tool Using RealBasic and Mac OS X.**  
Peter J. Molfese, Terri L. Bonebright, Theresa M. Herman, & Catherine A. Roe  
DePauw University  
[tbone@depauw.edu](mailto:tbone@depauw.edu)

stimulus Researchers in perceptual psychology have used programs, such as HyperCard, for consistent presentation and online data collection. With the release of the Macintosh OS X operating system, many such researchers will be interested in using this system's flexibility and power for data collection. The current project uses RealBasic 3.5 in the Mac OS X environment for development of a data collection procedure for investigating the effectiveness of sonified graphs.

**1:20 Present, Absent, and All Distances Between : Morphing Images for Signal-Detection Experiments**  
Lauren A. Baker, Jared P. Tagliatela, & David A. Washburn  
Georgia State University  
[Lbaker3@gsu.edu](mailto:Lbaker3@gsu.edu)

Traditionally in signal-detection experiments, participants have been asked to respond based

on the presence or absence of a target stimulus. Investigating changes in performance across a stimulus continuum between present and absent has been problematic because software now commercially available is not well-suited for many experimental paradigms. To solve this problem, we have created an original program that randomly morphs two images together at any specific distance between present and absent

### **1:35 On-Screen Audio Waveform as a Viable Alternative to the Voice Key**

Lauren A. Baker, Jared P. Tagliatela, & David A. Washburn  
Georgia State University  
[Lbaker3@gsu.edu](mailto:Lbaker3@gsu.edu)

The voice key is the traditional device used for collecting naming latency data, however, a method using an on-screen audio waveform is a viable alternative. Naming latencies for the methods did not differ. The waveform is an accurate and reliable alternative to the voice key, and it provides researchers with flexibility in stimulus presentation and in data collection.

### **1:50 Using Latent Semantic Analysis to Assess of Reader Strategies**

Joseph P. Magliano, Brenton D. Muñoz, Keith K. Millis & Katja Wiemer-Hastings  
Northern Illinois University,  
Danielle McNamara, Old Dominion University  
[jmagliano@niu.edu](mailto:jmagliano@niu.edu)

We tested a computer-based procedure for assessing reader strategies based on verbal protocols. Students were given self-explanation-reading training (SERT), which teaches strategies to facilitate self-explanation during reading. Students read texts and type thoughts into a computer after each sentence. The use of SERT strategies was assessed with experimenter judgements and latent semantic analysis. Both human judgements and LSA were remarkably similar and indicate that LSA can be used in a web-based version of SERT.

### **2:10 A Server-Side Program for Delivering Experiments with Animations**

William C. Schmidt, The State University of New York at Buffalo  
[wcswcs@acsu.buffalo.edu](mailto:wcswcs@acsu.buffalo.edu)

A server-side program for animation experiments is presented. The program is capable of delivering an experiment composed of discrete animation sequences in various file formats, collecting a discrete or continuous response from the observer, evaluating the appropriateness of the response and ensuring that the user is not proceeding at an unreasonable rate. Most parameters of the program are controlled by experimenter-edited text files or simple switches in the program code, thereby minimizing

the need

for programming to create new experiments. A simple demonstration experiment is presented.

## 2:20 Discussion

### Session VIII MODELING

CHAIR William Schmidt

2:30 - 3:30 p.m.

Coronado M & N

### 2:30 Correlates of Sensory Memory in Cultured Neurons

Frederick J. Bremner, Trinity University

Kamakshi Gopal & Guenter W. Gross, University of North Texas

[fbremner@cns.org](mailto:fbremner@cns.org)

Sperling(1960) demonstrated that human observers possessed an extremely short duration memory phenomenon (sensory memory) which decayed in a few 100 msec. Crowder (1971, 1976) reproduce this sensory memory effect in the auditory system but with a longer decay time. We found in vitro auditory cortex and spinal cord cultures contained such short duration memory neurons. These sensory neurons stayed active following a 50 msec stimulus for a duration and decay rate similar to memory.

### 2:50 Hybrid Connectionist/High Dimensional Networks in Modeling Aging and Memory

Patrick Conley and Curt Burgess

University of California, Riverside

[patrick@cassandra.ucr.edu](mailto:patrick@cassandra.ucr.edu)

Little computational modeling of age-related deficits in memory has been performed. Based on previous research demonstrating that frequently overlooked representational issues play a role in such memory changes, this study attempted to model both process and representation in a connectionist architecture trained on high-dimensional word vectors. A network trained with older adults' vectors produced more errors than a young-language network. These results provide evidence that representation and processing interact to produce age-related decline in memory performance.

### 3:10 Vocabulary Performance of HAL and LSA Using a Standardized Performance Measure

Cathy S. Robinson and Curt Burgess

University of California, Riverside

[catrob@citrus.ucr.edu](mailto:catrob@citrus.ucr.edu)

Two high-dimensional memory models (LSA & HAL) were compared using the standardized Nelson-Denny vocabulary test that examined word relationships as vectors of co-occurrence values representing similarity in a semantic space. Results showed word learning equivalent to the 9th-10th-grade level for both models. Ambiguity poses particular problems for these models that use

distributed

representations that encode multiple contexts, although the results demonstrate that a simple inductive learning mechanism can produce representations that account for a substantial share of item accuracy.

**Session IX**

**2:30 - 3:30 p.m.**

**Coronado P &**

**Q**

**RESEARCH & TEACHING TOOLS**

CHAIR Terri Bonebright

**2:30 Academic and Professional Development: Expanding the Psychology Graduate**

**Applicant's Portal**

Zana Devitto, Curt Burgess, Catherine Decker, & Patrick Conley

University of California, Riverside

[zana@psychgrad.org](mailto:zana@psychgrad.org)

The Psychology Graduate Applicant's Portal (PGAP) is a successful web site designed to present psychology students with the information they need to get into graduate school. Since its introduction, three other important information domains have been added: Doing Well As An Undergraduate, Succeeding in Graduate School, and Life After Graduate School. Many resources exist on the internet to assist the psychology student in all four aspects of the graduate experience, but the process of finding relevant resources is time-consuming and arduous. PGAP allows the unique opportunity of presenting relevant and substantive resources chosen by content editors all on one site.

**2:45 Octave Matching, Pitch JND, and Auditory Masking Exercises: On-line and Ready to Go**

Margaret P. Munger & Daniel M. Boye

Davidson College

Three auditory demonstrations using streaming technology and Java scripts are available via the web. These allow student participation in classic acoustic experiments: octave matching for a single frequency, JND for pitch and a masking task that both use three different base frequencies. Students immediately receive their data for subsequent graphing. The exercises were developed to encourage an inquiry-based approach to the material that focuses on a student's experience and personal data.

**2:55 Online Homework/Quiz/Exam Applet: Freely Available JAVA Software for Evaluating Performance Online.**

Oakley E. Gordon, Southern Utah University

Thomas E. Malloy, University of Utah

[malloy@psych.utah.edu](mailto:malloy@psych.utah.edu)

The Homework/Quiz/Exam Applet is a freely available JAVA program which can be used to evaluate student performance online for any content authored by a teacher. It has database connectivity so that student scores are automatically recorded. It allows several different types of questions; it allows questions to refer to detailed story problems. It allows teachers to randomize the sequence of questions and to randomize which of several options is the correct answer.

### **3:10 Programmed Operant Schedules for Human Subjects**

Allen H. Wolach, Illinois Institute of Technology

Maureen A. McHale, Northwestern State University of Louisiana

A computer program for programming schedules of reinforcement for human subjects was developed. Human subjects experienced FR, VR, FI, VI and DRL Schedules. Half the subjects were given a description of the schedule before starting training( 9 minutes per day). After 10 days of training cumulative recordings for humans were much like cumulative recordings for lower animals. Prior versus no prior knowledge of the schedule did not differentially affect performance on the schedules.

### **Session X**

**4:00 pm - 6:30 pm**

CHAIR Paula Goolkasian

Presidential Address:

Sarah Ransdell, Florida Atlantic University

#### **Teaching a Laboratory Science in the Age of the Internet**

For over 30 years, psychologists have relied on computers to teach psychology as a laboratory science.

For example, the development of experiment generators has made it possible for students to create well-designed experiments and test sophisticated hypotheses. Experiment generators are now widely

available via the Web. Advantages and disadvantages of Internet-based vs Intranet-based experiment generators are discussed.

Invited Address:

Dominic Massaro, University of California.

#### **Developing and Evaluating Conversational Agents.**

Speech perception and communication are usually successful because perceivers optimally integrate

several sources of information, particularly information from the face as well as the voice. Our research agenda aims to create computer-animated agents that produce accurate auditory and visible speech, as well as realistic facial expressions, emotions and gestures. The invention of such agents has awesome potential to benefit virtually all individuals, but especially those with hearing, speech and communication problems. Our computer-animated talking head, Baldi, speaks in real time on an inexpensive PC platform and involves phoneme synthesis controlled by coarticulation constraints. Recent modifications include additional and modified control parameters, texture mapping, realistic tongue movements, hard palate, controls for paralinguistic information and affect in the face, text-to-visible speech synthesis, alignment with natural speech, and auditory speech to visible speech synthesis. The talk will describe this technology, the evaluation of its effectiveness, how it is used in psychological experimentation to test theories of pattern recognition, and its applications in language training and education.

Business Meeting (Sarah Ransdell)

## Session XI

Coronado R & S

### POSTERS 9:00 - 3:00 pm

Posters can be viewed from 9:00 am to 3:00 pm. Authors will be available to answer questions from 9:00 - 10:00 am

#### **How the Presence and Appropriateness of Gender-Related Sport Links Affect Impressions of WWW Home Page Owners**

Jeff M. Kretschmar & Christopher R. Wolfe, Miami University

[kretscjm@muohio.edu](mailto:kretscjm@muohio.edu)

The present research examined how people's impressions of home page owners are affected by the inclusion of sport links. Gender-appropriate or gender-inappropriate sport links were included on home pages of a fictional male and female. Results indicated that males generated more favorable impressions of men whose home pages did not include sport links while females rated both males and females who included sport links higher than those who do not include such links.

#### **Electronic Scapegoating: Attributions of Blame and Responsibility in Human Computer Interaction**

J. Campbell, Christian End, Jeffrey Kretschmar, & Christopher Wolfe

Miami University

[campbeqj@muohio.edu](mailto:campbeqj@muohio.edu)

Attributions of blame and responsibility following an imagined human-computer interaction were assessed using an Internet sample. Participants were asked to read about a fictional blind date that was arranged

either by a friend or a computer dating service, and then to make attributions based on the date's outcome.

Respondents took more credit for the outcome following a positive date and blamed their "date" more following a negative date. However, the computer service was not assigned more blame than a human counterpart following a negative date

### **Using Focus Groups to Evaluate Design Elements of an Interactive Web-Site for Psychology Students**

Nancy McCarley, Gary Bradshaw, and Brittney Mathies  
Mississippi State University  
[Ngm1@ra.msstate.edu](mailto:Ngm1@ra.msstate.edu)

This paper describes the process of using focus group techniques to evaluate various elements (design and appeal) of an advanced interactive website (epsych, (<http://epsych.msstate.edu/>) designed for college students enrolled in psychology courses. Methodology for conducting successful focus groups will be presented and the authors will make their case for using this type of discussion group to complement and extend traditional paper and pencil evaluation efforts. Particular emphasis will be placed upon the importance of evaluation of the design elements of educational websites.

### **"Psicoinfo - Limitations and Possibilities of Psychological Applications on the Brazilian Internet."**

Luciana Nunes, Nova Southeastern University  
[luciana@psicoinfo.com.br](mailto:luciana@psicoinfo.com.br)

The purpose of the present paper is to critically review the applications of psychology mediated by technology in Brazil. Following an overview of the Brazilian Internet movement and the Brazilian Federal Psychological Counsel position regarding the applicability of psychological interventions on-line.

The current article also intend to mobilize the international community to support the Brazilian movement of recognizing the importance of having a systematic guidelines to practice online.

### **Research Applications Of Computerized Measurement Of Response Times In Psychological Testing**

Ken Stange, Nipissing University  
[ken@stange.com](mailto:ken@stange.com)

One particularly fruitful application of computer technology in psychology is in the research area of computerized testing and measurement of response latencies (a variable often difficult to measure objectively and accurately by any other means). This presentation reviews some research applications the author has made of computerized recording of response times in the areas of personality testing, criterion-referenced testing, and empirical aesthetics.

### **Personality Research on the Internet: A Comparison of Web Based and Traditional Instruments**

**in Take-Home and In-Class Settings.**

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Students and faculty are increasingly comfortable with the Internet, and many are interested in using the web to collect data. Few published studies investigate the differences between web based data and data collected with more traditional methods. This study crosses two important factors to investigate these potential differences: whether the data are collected on-line or not, and whether the data are collected in a group setting or individually.

**WEXTOR: A Web Experiment Generator**

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WEXTOR is a java-script based Web experiment generator and teaching tool that can be used to design Web experiments in a guided step-by-step process. It dynamically creates the custom-tailored Web pages and Javascripts needed for the Web experiment, and it provides the experimenter with a print-ready visual display of one's experimental design. WEXTOR is platform-independent and may be used freely for educational and non-commercial uses. Its Web address is at <http://www.genpsylab.unizh.ch/wextor/index.html>

**Session XII**  
**6:30 - 8:00 pm E' prime Workshop**

**Coronado M & N**