James A. Landay

Computer Science Division
EECS Department
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Research Interests

Human-Computer Interaction, User Interface Construction Systems, Sketch-based User Interfaces, Automated Usability Evaluation, Ubiquitous Computing, Computer-supported Cooperative Work, Demonstrational Interfaces, Visual Programming, Web Design, and Educational Computing.

Education

Carnegie Mellon University, Pittsburgh, PA (8/90-12/96)
Ph.D. in Computer Science, 1996
Thesis: *Interactive Sketching for the Early Stages of User Interface Design*
Advisors: Brad Myers and James Morris

M.S. in Computer Science, 1993

University of California, Berkeley, CA (8/85-5/90)
B.S. in Electrical Engineering/Computer Science with High Honors, 1990

Academic Honors

National Science Foundation CAREER Award (1999)
CHI Doctoral Consortium participant (1995)
Member of Sigma Xi (The Scientific Research Society) (1995)
Honorable Mention for National Science Foundation Graduate Fellowship (1990)
President of Eta Kappa Nu (Electrical Engineering Honor Society) (Spring 1990)
Blue and Gold Phonathon Chair of Tau Beta Pi (Engineering Honor Society) (1990)
Honor Roll (Fall 1986 - May 1990)

Professional Employment

University of California, EECS Department, Berkeley, CA
Associate Professor (7/2002-present)
Assistant Professor (1/1997-6/2002):
Teach courses related to user interface design, development, and evaluation. Perform research in the areas of human-computer interaction, user interface design tools, computer-supported cooperative work, pen-based user interfaces, end-user programming, mobile computing, and other novel uses of computer technology.

James A. Landay

Consultant (1/1997-present):
Advise companies on user interface design and user interface software implementation.

Fuji-Xerox Palo Alto Labs, Palo Alto, CA
Intel Corporation, Seattle, WA
NetRaker Corporation, Mt. View, CA
Pangea Systems, Oakland, CA
Propel Software, Santa Clara CA
SkyFlow, Berkeley, CA

Xerox Corporation, Palo Alto Research Center, Palo Alto, CA (6/92-8/92)
Research Intern: Investigated the user interface problems encountered when running applications on a large (more than 5 foot diagonal) pen-based display. Proposed new forms of user interface components that would solve some of these problems. Built some of the proposed components and a prototype application that incorporated them.

Digital Equipment Corporation, Paris Research Laboratory, France (6/91-8/91)
Summer Research Intern: Designed and implemented Rockit, a software system that identifies the graphical constraints in a scene and allows the user to quickly and easily choose and apply the desired constraints. Used both graphical and written rules to choose the most likely constraints.

Go Corporation, Foster City, CA (6/90-8/90)
Software Engineering Intern: Designed and implemented bug entry data base for the company's pen-based computer. Design included user interface to and communications with data base residing across a network, as well as extension of a commercial data base product to support additional features.

Ardent Computer, Sunnyvale, CA (6/89-8/89)
Member of Technical Staff: Designed and developed ECAD library manager to maintain consistency among different libraries and projects. Programmed CAD utilities for logic designers. Ran test simulations for verification of ASIC designs before release to semiconductor houses.

Software Publishing Corporation, Mountain View, CA (6/87-8/87 & 1/88-8/88)
Software Engineering Intern: Designed and implemented PFS: Professional File 2.0 window manager, which facilitated custom application development through dynamic creation and disposal of menus, pulldowns, and dialogs on various displays. Created utility for use by graphics designer to finalize details of user interfaces. Improved performance of database routines. Implemented routines to import and export data from Lotus 1-2-3. Wrote PostScript printer driver.

Synchronon Corporation, Berkeley, CA (8/86-12/89)
President: Founded computer consulting firm specializing in implementing custom applications for businesses. Responsible for all aspects of business operations including finances, customer relations, and engineering.

Teaching Experience & Development

University of California
Software Engineering (CS 169)
Spring 2001 – 5.7/5.5
Applied Software Management (BA 293)
Spring 2001
The Past, Present, and Future of Interactive Computing (Freshman Seminar)
Spring 2001 – 5.8/5.4
User Interface Design, Prototyping, and Evaluation (CS 160)
Spring 2002 – 5.9/5.3, Fall 2000 – 5.8/5.3, Fall 1999 – 5.7/5.5, Fall 1998 – 5.8/5.3, Fall 1997 – 5.5/5.6, Spring 1997 – 4.9/5.2
Research Topics in Human-Computer Interaction (CS 260)
Fall 1999 – 6.0/5.5, Spring 1998 – 5.2/5.9
CSCW Using CSCW (CS 294-7)
Fall 2001 – 5.5/NA, Fall 1997 – 5.6/5.7
* Teaching ratings reported as Semester – my rating / departmental average for level of course

National Science Foundation (August 1998)
Attended *NSF Engineering Education Scholars Workshop*, Palo Alto, CA.

Computing Research Association (June 1997)
Attended *CRA Academic Careers and Teaching Workshop*, Denver, CO.

Carnegie Mellon University (Fall 1994)
Teaching assistant for Professor Bonnie John's *human-computer interaction* course. Responsibilities included giving some lectures, helping formulate assignments and exams, grading assignments and exams, and holding regular office hours.

Carnegie Mellon University (Fall 1993)
Teaching assistant for Professor Andy Witkin's undergraduate *computer graphics* course. Responsibilities included helping formulate assignments and exams, grading assignments and exams, leading review sessions, and holding regular office hours.

University of California (Spring 1989)
Grader and consultant for introductory programming course for non-majors. Held office hours several times each week in the computer cluster to assist students with programming assignments. Responsibilities also included grading assignments and exams.

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Academic Advising

8 doctoral students (7 active, 1 graduated)

- Allan Chris Long, Jr., *Quill: A Gesture Design Tool for Pen-based User Interfaces*, 2001 (now a Postdoctoral Researcher at Carnegie Mellon University)

8 masters students (0 active, 8 graduated)

- Jack Chen, *SUEDE: A Wizard of Oz Prototyping Tool for Speech User Interfaces*, 2000 (now a senior systems architect at Xanboo Inc.)
- Katherine Everitt, *Two Worlds Apart: Bridging the Gap Between Physical and Virtual Media for Distributed Design Collaboration*, 2003 (now at Mitsubishi Electric Research Lab)
- F. Wai-ling Ho-Ching, *From Data to Display: the Design and Evaluation of a Peripheral Sound Display for the Deaf*, 2002 (now at Microsoft Research)
- Jonathan Huang, *A Collaborative Property-Based Note Management System*, 2001 (now a software engineer at Siebel Systems)
- Francis Li, *Supporting Collaborative Teams in Engineering Education*, 2001 (now a Graduate student in Interaction Design at the Interaction Design Institute Ivrea)
- Mark Newman, *DENIM: An Informal Web Site Design Tool Inspired by Observations of Practice*, 2000 (now a research scientist at PARC)
- Miriam Walker, *High-fidelity or Low-fidelity, Paper or Computer Medium?*, 2002
- Sarah Waterson, *WebQuilt: A Visual Analysis Tool for Understanding Web Usability Clickstream Data*, 2002 (now an independent consultant)

40 undergraduate researchers (6 active)

3 CS reentry program students (underrepresented minorities pursuing background necessary for entering CS graduate programs)

Campus and Academic Service

EECS department admissions committee (1997-2001)
Chair of site selection subcommittee of the campus wireless networking task force (2001)

Software Artifacts

- **DENIM** – sketch-based web site design and test tool. Downloaded over 13,000 times and in use by both researchers and professional designers.
- **SUEDE** – Wizard of Oz style speech UI design and test tool. Downloaded over 900 times and in use by Nuance and a number of other speech UI development firms.
- **SATIN** – Toolkit for building sketch-based applications that include recognition. Downloaded over 1,100 times and in use by industry, researchers, and in courses at Georgia Institute of Technology.
- **WebQuilt** – Web site evaluation and visualization tool. Downloaded over 600 times and in use by several web firms.
- **SILK** – First sketch-based electronic system for graphical user interface design.
- **Agate** – Pen-gesture design and training tool. Part of the Garnet UIMS, used by over 80 projects world-wide.

Publications and Talks

Books

Douglas K. van Duyne, James A. Landay, and Jason I. Hong, *The Design of Sites: Principles, Processes, and Patterns for Crafting a Customer-Centered Web Experience*, Reading, MA: Addison-Wesley, July 2002.

Refereed Journal Publications

Mark W. Newman, James Lin, Jason I. Hong, and James A. Landay, "DENIM: An Informal Web Site Design Tool Inspired by Observations of Practice." To appear in *Human-Computer Interaction*, 2003.

Xiaodong Jiang and James A. Landay. "Modeling Privacy Control in Context-aware Systems." *IEEE Pervasive Computing*, 1(3), July-Sept. 2002, pp. 59-63.

Anoop K. Sinha, Scott R. Klemmer, and James A. Landay. "Embarking on Spoken-Language NL Interface Design." *The International Journal of Speech Technology*, May 2002, Volume 5, Number 2, pp. 159-169.

Jason I. Hong, Jeffrey Heer, Sarah Waterson, and James A. Landay, "WebQuilt: A Proxy-based Approach to Remote Web Usability Testing." ACM *Transactions on Information Systems*, 19(3), July 2001, pp. 263-285.

Jason I. Hong and James A. Landay, "An Infrastructure Approach to Context-Aware Computing." *Human-Computer Interaction*, 16(2-4), 2001.

James A. Landay and Brad A. Myers, "Sketching Interfaces: Toward More Human Interface Design." *IEEE Computer*, 34(3), March 2001, pp. 56-64.

Jason Hong and James A. Landay. "A Context / Communication Information Agent." *Personal and Ubiquitous Computing*, Special Issue on Situated Interaction and Context-Aware Computing. 5(1): Springer-Verlag. 2001, pp. 78-81.

Oviatt, S.L., Cohen, P.R., Wu, L.,Vergo, J., Duncan, L., Suhm, B., Bers, J., Holzman, T., Winograd, T., Landay, J., Larson, J. & Ferro, D. "Designing the user interface for multimodal speech and gesture applications: State-of-the-art systems and research directions." *Human Computer Interaction*, 2000, 15(4), 263-322 (reprinted in *Human-Computer Interaction in the New Millennium*, ed. by J. Carroll, Reading, MA: Addison-Wesley, 2002, pp. 419-452).

James A. Landay and Richard C. Davis, "Making Sharing Pervasive: Ubiquitous Computing for Shared Note Taking." *IBM Systems Journal*, 38(4), October 1999, pp. 531-550.

James A. Landay. "Tool Review: Serius, A Visual Programming Environment." *Journal of Visual Languages and Computing*, 2(3), September 1991, pp. 297–303.

Invited Journal Publications

Marti A. Hearst, Mark D. Gross, James A. Landay, and Thomas F. Stahovich. "Sketching Intelligent Systems." In *IEEE Intelligent Systems*, vol.13, (no. 3), IEEE, May-June 1998. pp.10-19.

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Refereed Conference Publications

Scott R. Klemmer, Jamey Graham, Gregory J. Wolff, James A. Landay, "Books with Voices: Paper Transcripts as a Tangible Interface to Oral Histories." In the Proceedings of CHI 2003, ACM Conference on Human Factors in Computing Systems, *CHI Letters*, 5(1), pp. 89-96 [16% acceptance rate].

F. Wai-ling Ho-Ching, Jennifer Mankoff, and James A. Landay, From Data to Display: the Design and Evaluation of a Peripheral Sound Display for the Deaf. In the Proceedings of CHI 2003, ACM Conference on Human Factors in Computing Systems, *CHI Letters*, 5(1), pp. 161-168 [16% acceptance rate].

Katherine M. Everitt, Scott R. Klemmer, Robert Lee, James A. Landay. "Two Worlds Apart: Bridging the Gap Between Physical and Virtual Media for Distributed Design Collaboration." In the Proceedings of CHI 2003, ACM Conference on Human Factors in Computing Systems, *CHI Letters*, 5(1), pp. 553-560 [16% acceptance rate].

Miriam Walker, Leila Takayama, James A. Landay, "High-fidelity or low-fidelity, paper or computer medium?" In the Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting, Baltimore, October 2002, pp. 661-665.

Anoop K. Sinha and James A. Landay. Embarking on Multimodal Interface Design. In the Proceedings of the Fourth IEEE International Conference on Multimodal Interaction (ICMI 2002), Pittsburgh, PA, October 2002, pp. 355-360.

Xiaodong Jiang, Jason Hong, James A. Landay, "Approximate Information Flows: Socially-based Modeling of Privacy in Ubiquitous Computing." In Proceedings of UBICOMP 2002: The 4th International Conference on Ubiquitous Computing, Göteborg, Sweden, September 2002, pp. 176-193 [15% acceptance rate].

James Lin and James A. Landay. "Damask: A Tool for Early-Stage Design and Prototyping of Multi-Device User Interfaces." In Proceedings of *The 8th International Conference on Distributed Multimedia Systems (2002 International Workshop on Visual Computing)*, San Francisco, CA, September 26-28, 2002, pp. 573-580 [50% acceptance rate].

Hesham M. Kamel and James A. Landay, "Sketching Images Eyes-free: A Grid-based Dynamic Drawing Tool for The Blind." In ASSETS 2002: *Proceedings of the Fifth International ACM SIGCAPH Conference on Assistive Technologies*, Edinburgh, Scotland, July 2002 [40% acceptance rate].

Sarah J. Waterson, Jason I. Hong, Tim Sohn, Jeffrey Heer, Tara Matthews, and James A. Landay, "What Did They Do?: Understanding Clickstreams with the WebQuilt Visualization System." In *AVI 2002: Proceedings of the International Working Conference on Advanced Visual Interfaces*, Trento, Italy, May 2002 [30% acceptance rate].

James Lin, Michael Thomsen, and James A. Landay. "A Visual Language for Sketching Large and Complex Interactive Designs." In Proceedings of CHI 2002, ACM Conference on Human Factors in Computing Systems, *CHI Letters*, 4(1), pp. 307-314. [15% acceptance rate].

Scott R. Klemmer, Michael Thomsen, Ethan Phelps-Goodman, and James A. Landay. "Where Do Web Sites Come From? Capturing and Interacting with Design History." In Proceedings of CHI 2002, ACM Conference on Human Factors in Computing Systems, *CHI Letters*, 4(1), pp. 1-8. [15% acceptance rate].

Scott Klemmer, Mark W. Newman, Ryan Farrell, Mark Bilezikjian, and James A. Landay, "The Designers' Outpost: A Tangible Interface for Collaborative Web Site Design." UIST 2001, ACM Symposium on User Interface Software and Technology, *CHI Letters*, 3(2), pp. 1-10. [19% acceptance rate].

Francis C. Li, James A. Landay, and Anthony D. Joseph, "Supporting Collaborative Teams in Engineering Education." In *Proceedings of the 2001 American Society for Engineering Education Annual Conference & Exposition*, June 24-27, 2001, Albuquerque, New Mexico [55% acceptance rate].

Jason Hong and James A. Landay, "WebQuilt: A Framework for Capturing and Visualizing the Web Experience." In *Proceedings of the Tenth International World Wide Web Conference*, Hong Kong, May 2001, pp. 717-724 [20% acceptance rate].

Hesham M. Kamel and James A. Landay. "A Study of Blind Drawing Practice: Creating Graphical Information Without the Visual Channel." In *Assets 2000: Proceedings of the Fourth ACM Conference on Assistive Technologies*, Washington, DC, Nov. 2000, pp. 34-41.

Mark W. Newman and James A. Landay. "Sitemaps, Storyboards, and Specifications: A Sketch of Web Site Design Practice as Manifested Through Artifacts." In DIS 2000, *Proceedings of the ACM Conference on Designing Interactive Systems*. New York, NY. August 17-19, 2000, pp. 263-274 [9% accepted for talks].

Scott R. Klemmer, Anoop K. Sinha, Jack Chen, James A. Landay, Nadeem Aboobaker, Annie Wang, "SUEDE: A Wizard of Oz Prototyping Tool for Speech User Interfaces." UIST 2000, ACM Symposium on User Interface Software and Technology, *CHI Letters,* 2(2), pp. 1-10 [26% acceptance rate].

Jason I. Hong and James A. Landay, "SATIN: A Toolkit for Informal Ink-based Applications." UIST 2000, ACM Symposium on User Interface Software and Technology, *CHI Letters,* 2(2), pp. 63-72 [26% acceptance rate].

James Lin, Mark W. Newman, Jason I. Hong, and James A. Landay. "DENIM: Finding a tighter fit between tools and practice for web site design." CHI 2000, ACM Conference on Human Factors in Computing Systems, *CHI Letters*, 2(1), pp. 510-517 [19% acceptance rate].

Allan C. Long, James A. Landay, and Lawrence A. Rowe. "Visual Similarity of Pen Gestures." CHI 2000, ACM Conference on Human Factors in Computing Systems, *CHI Letters*, 2(1), pp. 360-367 [19% acceptance rate].

James A. Landay. "Using Note-Taking Appliances for Student to Student Collaboration." In Proceedings of *Frontiers in Education '99*. San Juan, Puerto Rico, Nov. 1999 [~60% acceptance rate].

Allan C. Long, James A. Landay, and Lawrence A. Rowe. "Implications for a Gesture Design Tool." In *Human Factors in Computing Systems: CHI '99 Conference Proceedings*, Pittsburgh, PA, May 1999, pp. 40-47 [25% acceptance rate].

Richard C. Davis, James A. Landay, Victor Chen, Jonathan Huang, Rebecca B. Lee, Francis C. Li, James Lin, Charles B. Morrey III, Ben Schleimer, Morgan N. Price, and Bill N. Schilit. "NotePals: Lightweight Note Sharing by the Group, for the Group." In *Human Factors in Computing Systems: CHI '99 Conference Proceedings*, Pittsburgh, PA, May 1999, pp. 338-345 [25% acceptance rate].

Todd Hodes, Mark Newman, Steven McCanne, Randy Katz, and James Landay. "Shared Remote Control of a Videoconferencing Application: Motivation, Design, and Implementation." In *Proceedings of SPIE Multimedia Computing and Networking 1999*, IS&T/SPIE 1999 International Symposium on Electronic Imaging, January 1999, pp. 17-28 [37% acceptance rate].

Allison Woodruff, James Landay, and Michael Stonebreaker. "Constant Density Visualizations of Non-uniform Distributions of Data." In *Proceedings of UIST '98*, November 1998, pp. 19-28 [25% acceptance rate].

Allison Woodruff, James Landay, and Michael Stonebraker. "Constant Information Density in Zoomable Interfaces." In *Proceedings of Advanced Visual Interfaces '98*, May 1998, pp. 57-65 [35% acceptance rate].

Brad A. Myers, Francesmary Modugno, Rich McDaniel, David Kosbie, Andrew Werth, Robert C. Miller, John Pane, James Landay, Jade Goldstein, and Matthew A. Goldberg, "The Demonstrational Interfaces Project at CMU," *1996 AAAI Spring Symposium on Acquisition, Learning and Demonstration: Automating Tasks for Users.* March 25-27, 1996, Stanford, CA, pp. 85-91.

James A. Landay and Brad A. Myers. "Interactive Sketching for the Early Stages of User Interface Design." In *Proceedings of CHI '95*, Denver, CO, May 1995, pp. 43–50. (Also appeared as Carnegie Mellon University, Human-Computer Interaction Institute Technical Report CMU-HCII-94-104 and as School of Computer Science Technical Report CMU-CS-94-176, July 1994) [29% acceptance rate].

James A. Landay and Todd R. Kaufmann. "User Interface Issues in Mobile Computing." In the *Proceedings of the Fourth Workshop on Workstation Operating Systems*, 1993 (Napa, CA, Oct. 14 - 15, 1993) IEEE Computer Society Press, Los Alamitos, CA, 1993, pp. 40–47 [67% acceptance rate].

Solange Karsenty, James A. Landay, and Chris Weikart. "Inferring Graphical Constraints with Rockit." In *People and Computers VII*, Proceedings of HCI '92, York, UK, September 1992, pp. 137–153. (Also appeared as DEC Paris Research Laboratory Research Report 17, March 1992) [25% acceptance rate].

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Refereed Short Conference Publications

Jason Hong, James Landay, A. Chris Long, and Jennifer Mankoff, "Sketch Recognizers from the End-User's, the Designer's, and the Programmer's Perspective." In Proceedings of 2002 AAAI Symposium on Sketch Understanding, April 2002, pp. 73.

James A. Landay, Jason Hong, Scott Klemmer, James Lin, and Mark Newman, "Informal PUIs: No Recognition Required." In Proceedings of 2002 AAAI Symposium on Sketch Understanding, April 2002, pp. 86.

Hesham M. Kamel and James A. Landay. "Constructing Moving Pictures Eyes-free: An Animation Tool for the Blind." In *Human Factors in Computer Systems: CHI 2002 Conference Extended Abstracts*, Minneapolis, MN, April 20-25, 2002. [33% acceptance rate].

Sarah Waterson, James A. Landay, Tara Matthews. "In the Lab and Out in the Wild: Remote Web Usability Testing for Mobile Devices." In *Human Factors in Computer Systems: CHI 2002 Conference Extended Abstracts*, Minneapolis, MN, April 20-25, 2002. [33% acceptance rate].

Anoop Sinha and James Landay. "Visually Prototyping Perceptual Interfaces through Multimodal Storyboarding." IEEE Workshop on Perceptive User Interfaces, November 15-16, 2001. Orlando, FL [30% acceptance rate].

A. Chris Long, Jr., James A. Landay, and Lawrence A. Rowe. "Those Look Similar! Issues in Automating Gesture Design Advice." Poster in IEEE Workshop on Perceptive User Interfaces, November 15-16, 2001. Orlando, FL [49% acceptance rate].

Jason I. Hong, Francis C. Li, James Lin, and James A. Landay "End-User Perceptions of Formal and Informal Representations of Web Sites." In *Human Factors in Computer Systems: CHI 2001 Conference Extended Abstracts*, Seattle, WA, March 31-April 5, 2001, pp. 385-386 [23% acceptance rate].

Regan L. Mandryk, Kori M. Inkpen, Mark Bilezikjian, Scott R. Klemmer, and James A. Landay "Supporting Children's Collaboration Across Handheld Computers." In *Human Factors in Computer Systems: CHI 2001 Conference Extended Abstracts*, Seattle, WA, March 31-April 5, 2001, pp. 255-256 [23% acceptance rate].

Hesham M. Kamel and James A. Landay, "The Use of Labeling to Communicate Detailed Graphics in a Non-visual Environment." In *Human Factors in Computer Systems: CHI 2001 Conference Extended Abstracts*, Seattle, WA, March 31-April 5, 2001, pp. 243-244 [23% acceptance rate].

Hesham Kamel and James A. Landay. "The Integrated Communication 2 Draw (IC2D): A Drawing Program for the Visually Impaired." In *Human Factors in Computing Systems: CHI '99 Extended Abstracts*, Pittsburgh, PA, May 1999, pp. 222-223 [29% acceptance rate].

Allison Woodruff, James Landay, and Michael Stonebraker, "Goal Directed Zoom." In *CHI '98 Summary*, April 1998, pp. 305–306 [22% acceptance rate].

James A. Landay and Brad A. Myers. "Sketching Storyboards to Illustrate Interface Behaviors." In *CHI '96 Conference Companion*, Vancouver, Canada, April 1996, pp. 193–194 [22% acceptance rate].

James A. Landay and Brad A. Myers. "Extending an Existing User Interface Toolkit to Support Gesture Recognition." In *Adjunct Proceedings of INTERCHI*, Amsterdam, The Netherlands, April 1993, pp. 91–92.

Solange Karsenty, James A. Landay, and Chris Weikart. "Audio Cues For Graphic Design." In *CHI '92 Posters and Short Talks,* Human Factors in Computing Systems, May 1992, pp. 77-78.

Book Chapters

A. Chris Long, Jr., James A. Landay, and Lawrence A. Rowe. "Helping Designers Create Recognition-Enabled Interfaces." In *Multimodal Interface for Human Machine Communication*, Y.Y. Tang, P.C. Yuen, P.S.P. Wang (Eds). World Scientific, 2002.

Refereed Published Videos

James Lin, Mark W. Newman, Jason I. Hong, and James A. Landay. "DENIM: An Informal Tool for Early Stage Web Site Design." Video poster in *Human Factors in Computer Systems: CHI 2001 Conference Extended Abstracts*, Seattle, WA, March 31-April 5, 2001, pp. 205-206.

Anoop K. Sinha, Scott R. Klemmer, Jack Chen, James A. Landay, and Cindy Chen. "SUEDE: Iterative, Informal Prototyping for Speech Interfaces." Video poster in *Human Factors in Computer Systems: CHI 2001 Conference Extended Abstracts*, Seattle, WA, March 31-April 5, 2001, pp. 203-204.

Allison Woodruff, James Landay, and Michael Stonebraker. "VIDA (Visual Information Density Adjuster)." Video demonstration in *Human Factors in Computing Systems: CHI '99 Conference Extended Abstracts*, Pittsburgh, PA, May 1999, pp. 19-20.

James A. Landay. "SILK: Sketching Interfaces Like Krazy." In CHI '96 Formal Video Program, Vancouver, Canada, April 1996.

Brad A. Myers, Dario Giuse, Andrew Mickish, Brad Vander Zanden, David Kosbie, Richard McDaniel, James Landay, Matthew Goldberg, and Rajan Pathasarathy. "The Garnet User Interface Development Environment." Technical Video Program of CHI '94, *CHI'94 Conference Companion* Boston, MA, April 24-28, 1994, pp. 455-456.

Solange Karsenty, James A. Landay, and Chris Weikart. "Inferring Graphical Constraints with Rockit." Video in Proceedings of INTERCHI, Amsterdam, The Netherlands, April 1993, p. 531.

Refereed Demonstrations

Richard Davis, James Lin, James Landay, Jason Brotherton, Bill Schilit, and Morgan Price. "A Framework for Sharing Handwritten Notes." In *Proceedings of UIST '98*, San Francisco, CA, Nov. 1998, pp. 119-120.

Refereed Workshop Position Papers

James Lin and James A. Landay, "Damask: A Tool for Early-Stage Design and Prototyping of Cross-Device User Interfaces." In *Workshop on Perspectives on HCI Patterns: Concepts and Tools*, CHI 2003, Ft. Lauderdale, FL, April, 2003.

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F. Wai-ling Ho-Ching, Jennifer Mankoff, James A. Landay. "Using peripheral displays to provide the deaf with awareness of environmental audio." In *Workshop on Elegant Peripheral Awareness*, CHI 2003, Ft. Lauderdale, FL, April, 2003.

Sarah Waterson and James A. Landay. "WebQuilt: Understanding User Behavior from Clickstream Data." In ACM CHI 2002 Conference on Human Factors in Computing Systems: *Workshop on Automatic Capture, Representation, and Analysis of User Behavior*, CHI 2002, Minneapolis, MN, April, 2002.

Jason I. Hong and James A. Landay, "Integrating Context Services Through Automatic Path Creation." In *Workshop on Building the User Experience in Ubiquitous Computing,* CHI 2001, Seattle, WA, April 2001.

Scott Klemmer and James Landay, "Different strokes for different folks: A fluid toolbelt of paper, walls, and electronic sketching." In *Workshop on Tools, Conceptual Frameworks, and Empirical Studies for Early Stages of Design*, CHI 2001, Seattle, WA, April 2001.

James Lin, Anoop Sinha, and James Landay, "Universal Access Through Multimodal Applications." In *Workshop on Transforming the UI for Anyone, Anywhere,* CHI 2001, Seattle, WA, April 2001.

Scott Klemmer, Mark Newman, Ryan Farrell, Raecine Meza, and James Landay, "A Tangible Difference: Participatory Design Studies Informing a Designers' Outpost." In *Workshop on Shared Environments to Support Face-to-Face Collaboration*, CSCW 2000, Philadelphia, PA, December, 2000.

Anoop K. Sinha and James A. Landay, "Towards Automatic Speech Input Grammar Generation." In *Workshop on Natural Language*, CHI 2000, The Hague, The Netherlands, May 2000.

Jason Hong and James A. Landay, "A Context / Communication Information Agent." In *Workshop on Situated Interaction in Ubiquitous Computing*, CHI 2000, The Hague, The Netherlands, May 2000.

Douglas J. van Duyne, James A. Landay, and Jason I. Hong, "Web Design Patterns for eCommerce." *Workshop on Pattern Languages for Interaction Design*, CHI 2000, The Hague, The Netherlands, May 2000.

James A. Landay and Jack Chen, "Informal Tools for Multimodal User Interface Design." In *Workshop on Designing the User Interface for Pen and Speech Applications*, CHI '99, Pittsburgh, PA, May 1999.

James A. Landay, Richard C. Davis, Victor Chen, Jonathan Huang, Rebecca B. Lee, Francis Li, James Lin, Charles B. Morrey III, and Ben Schleimer. NotePals: Sharing and Synchronizing Handwritten Notes with Multimedia Documents. In *Handheld CSCW Workshop*, CSCW '98, Seattle, WA, Nov. 1998.

James A. Landay, Mark Newman, Jason Hong. "The Shadow: A Personal Experience Capture System." In *Proceedings of 1998 DARPA/NIST Smart Spaces Workshop*, July 1998, p. 7-82–7-85.

James A. Landay. "Sketching for the Conceptual Stages of Web Page Design." In *Workshop on Interactive Systems for Supporting the Emergence of Concepts and Ideas*, CHI '97, Atlanta, GA. March 1997.

James A. Landay. "Using Personal Digital Assistants as Group Brainstorming Devices." In *Workshop on Ubiquitous Computing: The Impact on Future Interaction Paradigms and HCI Research*, CHI '97, Atlanta, GA. March 1997.

Unrefereed Publications

Ho-Ching, F.W., Mankoff, J., Landay, J.A. (2003), From Data to Display: the Design and Evaluation of a Peripheral Sound Display for the Deaf. Technical report UCB//CSD-02-1204

Scott R. Klemmer, Jamey Graham, Gregory J. Wolff, and James A. Landay. "Books with Voices: Paper Transcripts as a Tangible Interface to Oral Histories." UC Berkeley Computer Science Division Technical Report, UCB//CSD-02-1199, September 2002.

Scott R. Klemmer, Michael Thomsen, Ethan Phelps-Goodman, James A. Landay, "Where Do Web Sites Come From? Capturing and Interacting with Design History." Technical Report UCB/CSD-01-1157, CS Division, University of California, Berkeley, CA. September 2001.

S. R. Klemmer, M. W. Newman, R. Farrell, R. Meza, and J. A. Landay, "A Tangible Evolution: System Architecture and Participatory Design Studies of the Designers' Outpost." Technical ReportUCB/CSD- 00-1117, University of California, Berkeley, Technical Report. November 2000.

M. Bilezikjian, R. L. Mandryk, S. R. Klemmer, K. Inkpen, and J. A. Landay, "Exploring a New Interaction Paradigm for Collaborating on Handheld Computers." Technical Report UCB/CSD- 00-1116, University of California, Berkeley, November 2000.

A. Chris Long Jr., James A. Landay, and Lawrence A. Rowe, and Joseph Michiels. "Pen Gesture Similarity." Technical Report UCB/CSD-99-1069, CS Division, EECS Department, University of California, Berkeley, CA. October 1999.

James Lin, Mark Newman, Jason Hong, and James Landay, "DENIM: Finding a Tighter Fit between Tools and Practice for Web Site Design," Technical Report UCB//CSD-99-1065, CS Division, EECS Department, University of California, Berkeley, CA. 1999.

Mark Newman and James A. Landay. "Site Maps, Storyboards, and Specifications: A Sketch of Web Site Design Practice as Manifested Through Artifacts." Technical Report UCB//CSD-99-1062, CS Division, EECS Department, UC Berkeley, Berkeley, CA. September 1999.

Jason I. Hong and James A. Landay. "A Toolkit for Supporting Informal Ink-based Applications." Technical Report UCB//CSD-99-1058, CS Division, EECS Department, University of California, Berkeley, Berkeley, CA. August 1999.

Richard C. Davis and J.A. Landay, "An Exploration of Lightweight Meeting Capture." Technical Report CSD-98-1015, CS Division, EECS Department, UC Berkeley, May 1998.

Richard C. Davis, Jason A. Brotherton, James A. Landay, Morgan N. Price Bill N. Schilit. "NotePals: Lightweight Note Taking by the Group, for the Group." Technical Report UCB//CSD-98-997, CS Division, EECS Department, UC Berkeley, Berkeley, CA. February 1998.

A. Chris Long, Jr., James A. Landay, and Lawrence A. Rowe. "PDA and Gesture Use in Practice: Insights for Designers of Pen-based User Interfaces." Technical Report UCB//CSD-97-976, CS Division, EECS Department, UC Berkeley, Berkeley, CA. December 1997.

James A. Landay. "Interactive Sketching for the Early Stages of User Interface Design." Ph.D. Dissertation, Carnegie Mellon University, Computer Science Department Technical Report CMU-CS-96-201, December 1996.

James A. Landay and Brad A. Myers. "Just Draw It! Programming by Sketching Storyboards." Carnegie Mellon University, Human-Computer Interaction Institute Technical Report CMU-HCII-95-106 and School of Computer Science Technical Report CMU-CS-95-199, November 1995.

Ken Pier and James A. Landay. "Issues for Location-Independent Interfaces." Technical Report ISTL92-4, Xerox Palo Alto Research Center, December 1992.

Brad A. Myers, Dario Giuse, Andrew Mickish, Brad Vander Zanden, David Kosbie, James A. Landay, Richard McDaniel, Rajan Parthasarathy, Matthew Goldberg, Roger B. Dannenberg, Philippe Marchal, Ed Pervin. *The Garnet Reference Manuals*. Carnegie Mellon University Computer Science Department Technical Report, no. CMU-CS-90-117-R5, Sep. 1994. Revised from CMU-CS-90-117-R4, Oct. 1993, CMU-CS-90-117-R3, Nov. 1992, CMU-CS-90-117-R2, May 1992, CMU-CS-90-117-R, June 1991, CMU-CS-90-117, March, 1990, and CMU-CS-89-196, Nov. 1989.

Conference and Workshop Presentations

"Using Note-Taking Appliances for Student to Student Collaboration." Frontiers in Education '99, San Juan, Puerto Rico, Nov. 1999

"NotePals: Lightweight Note Sharing by the Group, for the Group." CHI '99, Pittsburgh, PA, May 1999.

"NotePals: Sharing and Synchronizing Handwritten Notes with Multimedia Documents." Handheld CSCW Workshop, CSCW '98, November 1998.

"Sketching Storyboards to Illustrate Interface Behaviors." CHI '96, Vancouver, Canada, April 1996.

"Interactive Sketching for the Early Stages of User Interface Design." CHI '95, Denver, May 1995.

"User Interface Issues in Mobile Computing." IEEE Computer Society Fourth Workshop on Workstation Operating Systems, Napa, CA, October 1993.

"Extending an Existing User Interface Toolkit to Support Gesture Recognition." ACM INTERCHI, Amsterdam, The Netherlands, April 1993.

"Inferring Graphical Constraints with Rockit." British Computer Society HCI '92, York, UK, September 1992.

James A. Landay

Invited Talks

"Rapid Iterative Design," Department of Computer Science & Engineering, University of Washington, Seattle, WA, May 2003.

"Rapid Iterative Design," Human-Computer Interaction Institute, Carnegie Mellon University, Pittsburgh, PA, April 2003.

"Using Design Patterns to Create Customer-Centered Web Sites," Silicon Valley WebGuild, San Jose, CA, February 2003.

"Methods and Tools for Rapid Iterative Design," Microsoft Research, Redmond, WA, February 2003.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Distinguished Lecture, Computer Science Department, University of Toronto, Toronto, Canada, February 2003.

"Using Design Patterns to Create Cross-Device Web Sites," Intel Research Seattle, Seattle, WA, January 2003.

"Using Design Patterns to Create Cross-Device Web Sites," Graphics, Vision, Usability Center, Georgia Institute of Technology, Atlanta, GA, December 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Computer Science Department, Sonoma State University, Santa Rosa, CA, November 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," CS Distinguished Invited Speakers, Computer Science Department, University of British Columbia, October 2002.

"Using Design Patterns to Create Customer-Centered Web Sites," Association of Computing Machinery BayCHI SIG, Palo Alto, CA, October 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," IBM TJ Watson Research Center, September 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," DoCoMo USA Laboratories, San Jose, CA, August 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Wireless Seminar, American Center for Design, Berkeley, CA, April 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," IBM Almaden Research Center, San Jose, CA, March 2002

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Department of Computer Science & Engineering, University of Washington, Seattle, WA, February 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Computer Science Department, University of Colorado, Boulder, CO, January 2002.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Graphics, Vision, and Usability Center, Georgia Institute of Technology, Atlanta, GA, August 2001

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Human-Computer Interaction Institute, Carnegie Mellon University, Pittsburgh, PA, August 2001

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Human-Computer Interaction Lab, University of Maryland, College Park, Maryland, August 2001

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Xerox Palo Alto Research Center, Palo Alto, CA, July 2001.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Google Corporation, Mountain View, CA, July 2001.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Association of Computing Machinery BayCHI East SIG, Berkeley, CA, June 2001.

"Informal Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Computer Science Department, Stanford University, Stanford, CA, May 2001.

"Pervasive Interaction: Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Microsoft Research China, Beijing, China, May 2001.

"Informal Tools for Designing User Interfaces," Microsoft Research China, Beijing, China, May 2001.

"Pervasive Interaction: Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Chinese Academy of Sciences, Beijing China, May 2001.

"Pervasive Interaction: Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Computer Science Department, Tsinghua University, Beijing China, May 2001.

"Pervasive Interaction: Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Computer Science Department, Beijing University, Beijing China, May 2001.

"Undergraduate HCI projects at UC Berkeley," Association of Computing Machinery BayCHI SIG, Palo Alto, CA, March 2001.

"DENIM: Finding a Tighter Fit Between Tools and Practice for Web Site Design & The NetRaker Suite of Web Site Usability and Market Research Tools," Busse Design Digital Roundtable Dinner Lecture Series, Emeryville, CA, August 2000.

"Pervasive Interaction: Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," Intel Research, Portland, OR, July 2000.

"Pervasive Interaction: Tools for Designing Anywhere, Anytime, Anydevice User Interfaces," 8th Annual New Paradigms for Using Computers Workshop, IBM Alamden Research Center, San Jose, CA, July 2000.

"Electronic Problem-based Learning: The Berkeley Nomadic Computing Experiment," Microsoft Research Faculty Summit 2000, Redmond, WA, July 2000.

"DENIM: Finding a Tighter Fit Between Tools and Practice for Web Site Design & The NetRaker Suite of Web Site Usability and Market Research Tools," The Silicon Valley WebGuild, San Jose, CA, June 2000.

"DENIM: Finding a Tighter Fit Between Tools and Practice for Web Site Design & The NetRaker Suite of Web Site Usability and Market Research Tools," Razorfish, San Francisco, CA, May 2000.

"Informal User Interfaces for Design & Communication," FX Palo Alto Labs, Palo Alto, CA, May 2000.

"Informal User Interfaces for Design & Communication," Computer Science Department, UCSD, San Diego, CA, April 2000.

"Undergraduate HCI projects at UC Berkeley," Association of Computing Machinery BayCHI SIG, Palo Alto, CA, February 2000.

"Informal User Interfaces for Design and Communication," School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, October 1999.

"Informal User Interfaces for Design and Communication," Association of Computing Machinery BayCHI SIG, Palo Alto, CA, September 1999.

"Invisible Computing Activities," University of Washington/Microsoft Research Summer Institute on Technologies of Invisible Computing, Seattle, WA, July 1999.

"The Post-PC Era," Online Journalism: From the Medium to the Message: 2nd Annual New Media Conference, Graduate School of Journalism, UC Berkeley, Berkeley, CA, March 1999.

"Informal User Interfaces for Shared Note Taking," Computer Science Department, Stanford University, Stanford, CA, February 1999.

"Using Informal Interfaces to Support Human-Human Communication," Microsoft Research, Redmond, WA, November 1998.

"Using Informal Interfaces to Support Human-Human Communication," Computer Science Department, U.C. Davis, Davis, CA, October 1998.

"Using Informal Interfaces to Support Human-Human Communication," Computer Science Department, University of Maryland, College Park, MD, July 1998.

"Using Informal Interfaces to Support Human-Human Communication," Phillips Multimedia Center, Palo Alto, CA, May 1998.

"Using Informal Interfaces to Support Human-Human Communication," DEC Western Research Lab, Palo Alto, CA, March 1998.

"NotePals: Notes for the Group, by the Group," Carnegie Mellon University, Pittsburgh, PA, September 1997.

"Interactive Sketching for the Early Stages of User Interface Design," IBM T.J. Watson Research Center, Yorktown Heights, NY, May 1996.

"Interactive Sketching for the Early Stages of User Interface Design," Sun Labs East, Chelmsford, MA, May 1996.

"Interactive Sketching for the Early Stages of User Interface Design," FX Palo Alto Laboratory, Palo Alto, CA, May 1996.

"Interactive Sketching for the Early Stages of User Interface Design," Sun Labs West, Mountain View, CA, May 1996.

"Interactive Sketching for the Early Stages of User Interface Design," Xerox Palo Alto Research Center, Palo Alto, CA, May 1996.

"Interactive Sketching for the Early Stages of User Interface Design," Lotus Development Corp., Cambridge, MA, April 1996.

"Interactive Sketching for the Early Stages of User Interface Design," University of California, Berkeley, CA, April 1996.

"Interactive Sketching for the Early Stages of User Interface Design," DEC Systems Research Center, Palo Alto, CA, April 1996.

"Interactive Sketching for the Early Stages of User Interface Design," IBM Almaden Research Center, Palo Alto, CA, April 1996.

"Interactive Sketching for the Early Stages of User Interface Design," NEC C&C Research Laboratories, San Jose, CA, April 1996.

"Interactive Sketching for the Early Stages of User Interface Design," National Semiconductor Research Lab, Santa Clara, CA, April 1996.

"Interactive Sketching for the Early Stages of User Interface Design," IBM T.J. Watson Research Center, Hawthorne, NY, March 1996.

"Interactive Sketching for the Early Stages of User Interface Design," Northwestern University, February 1996.

"Interactive Sketching for the Early Stages of User Interface Design," Xerox Palo Alto Research Center, Palo Alto, CA, July 1995.

"Interactive Sketching for the Early Stages of User Interface Design," DEC Systems Research Center, Palo Alto, CA, July 1995.

"Interactive Sketching for the Early Stages of User Interface Design," Apple Computer Advanced Technology Group, Cupertino, CA, July 1995.

"Interactive Sketching for the Early Stages of User Interface Design," US West Advanced Research Laboratory, Boulder, CO, May 1995.

"Interactive Sketching for the Early Stages of User Interface Design," University of Colorado, Boulder, CO, May 1995.

"User Interface Issues in Mobile Computing", DEC Systems Research Center, Palo Alto, CA, October 1993.

Research Grants

Government & University

National Science Foundation, 2002. *ITR: Human-Centered Design of Context Aware Computing: Scalability, Usability, Privacy*, $2,300,000

UC MICRO Program, 2002. *Design and Simulation Tools for Context-Aware Computing*, $45,000

National Science Foundation, 2000. *Action Agenda: Electronic Problem Based Long Life Learning for the Campus of the Future*, $499,269 (co-PI with Professor Joseph)

National Science Foundation, 2000. *The Designers' Outpost: A Task-centered Tangible Interface for Web Site Information Design*, $270,000

UC MICRO Program, 2000. *Multimodal Tools for Creating Informal Presentations and Specifying Animations*. $29,531

National Science Foundation CAREER Award, 1999. *Informal Tools for Multimodal User Interface Design*, $300,000

UC Berkeley Hellman Family Faculty Fund Award, 1999. *Computer-aided Drawing for the Visually Impaired*, $25,000

Center for Innovative Learning Technologies (CILT) Seed Grant, 1999. *Palms Together: Collaborative use of Multiple Baby-faced Displays*, $14,950

UC MICRO Program, 1998. *Informal Web page Design*. $16,603

UC Berkeley Junior Faculty Research Grant, 1998. *Informal User Interfaces for Classroom Teaching*. $7,500

Industrial

Xerox PARC, 2002. Unrestricted. $15,000

Hewlett-Packard, 2001. Unrestricted. $50,000

Xerox PARC, 2001. Unrestricted. $15,000

Fuji Xerox Palo Alto Laboratories, 2000. Unrestricted. $25,000

Qualcomm, 2000. *Adding History & Collaboration Support to DENIM*. $50,000

CubicScience, 2000. Unrestricted. $50,000

Xerox PARC, 2000. Unrestricted, $15,000

IBM, 2000. Unrestricted, $40,000

MyTurn.com, 2000. Unrestricted, $20,000

SRI, 2000, *Informal Tools for Multimodal User Interface Design*. $35,000

Intel, 1999, Infrastructure Grant for innovative use of laptop computers in the classroom, $200,000

Fuji Xerox Palo Alto Laboratories, 1999. Unrestricted. $15,000

NEC, U.S.A., 1998. *Informal Web Page Design*. $30,000

Fuji Xerox Palo Alto Laboratories, 1998. Unrestricted. $15,000

Fuji Xerox Palo Alto Laboratories, 1997. Unrestricted. $15,000

Professional Affiliations and Activities

Conference & Program Committees

CHI: ACM Conference on Human Factors in Computing Systems
- Papers Program Committee (2002, 2001)
- Late Breaking Results Program Committee (1999)

CSCW: ACM Conference on Computer Supported Cooperative Work Program Committee (2000)
Handheld CSCW Workshop Program Committee (1998)
ICMI: International Conference on Multimodal Interfaces Program Committee (2003)
UIST: ACM Symposium on User Interface Software & Technology:
- Program Chair (2004)
- Surveys Chair (2000)
- Program Committee (1999, 1998, 2003)
- Demos Committee (1997)
- Student Volunteers Chair (1995)

Referee

ACM *Transactions on Computer-Human Interaction* (1998, 2003)
ACM SIGMOBILE Mobile *Computing and Communications Review* (2002)
CHI: Human Factors in Computing Systems (1995-2000, 2003)
Computers & Graphics (2000)
Eurographics Workshop on Design, Specification, Verification of Interactive Systems (1995, 1996)
IEEE Computer Graphics and Applications (2000)
Graphics Interface (2003)
Human-Computer Interaction (2000)
SIGGRAPH (2001, 2003)
SIGGRAPH Symposium on Interactive 3D Graphics (2003)
UIST: ACM Symposium on User Interface Software and Technology (1997, 2000-2002)
NSF HCI Program Panel Reviewer (1999)

Other Activities

Organizer of CMU CHI Klatch seminar series
CHI ’99 “The Medium is the Message” session chair
CHI ’96 “Visual Techniques for Image Retrieval Demonstrations” session chair
CHI ‘95 “Pens & Touchpads” session chair
Member of Association for Computing Machinery (ACM)
Member of Special Interest Group on Computer-Human Interaction (SIGCHI)
Member of Special Interest Group on Graphics (SIGGRAPH)
CMU Student Senator, Fall 1993 - Fall 1994
Pittsburgh Cares (a public service organization)
WRCT 88.3 FM Sportsline Host
Active Member Award - Society of Women Engineers, Berkeley chapter

Citizenship

United States citizen