Lynn M. Cherny, Ph.D.

Ghostweather Research & Design, LLC

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Massachusetts, USA

SUMMARY

- Self-employed consultant experienced and passionate about data-mining, machine learning, interactive data visualization, text analysis.
- ♦ Current keywords: Python (data science tools), R, D3.js, NLP

EMPLOYMENT HISTORY

Visiting Knight Chair in Journalism

University of Miami, School of Communication

- Academic fellowship teaching Interactive Data Visualization (materials online: http://arnicas.github.io/interactive-vis-course/) and workshops on data analysis
- ♦ Developing toolkit for teaching and visualizing text analysis with Bocoup.com

Self-Employed Consultant for Data Analysis and Data Visualization Projects February 2007—2015

Ghostweather Research & Design, LLC

- ♦ Three years consulting as data analyst and developer for **Brandeis University**: Bayesian models in R, data graphing in R and Python, Python stats/graphs/files for web site displaying research data, Javascript UI
- ♦ Two years consulting for Cambridge financial startup: D3 visualization, data analysis, NLP (entity rec)
- Sample NLP work: PDF doc parsing, entity extraction, topic classification/clustering (LDA, naïve bayes)
- ♦ Dashboard design: Identify key metrics, mockups of useful charts for data presentation, analysis of data
- ♦ D3.js and Python (matplotlib) for data visualization : network data, treemaps, charts

User Experience Research/ Marketing Consultant April 2007 —September 2010

SolidWorks Corporation Consultant (CAD software)
Concord, MA

- Responsible for creation and tracking of user experience and satisfaction metrics for development organization, including executive dashboard design for the CTO
- Key data mining role on software quality projects: Identified patterns in software usage logs that suggest "crash" causes; design of data tools and dashboard to support stability research
- ♦ Established metrics and user feedback mechanisms on product installation, to guide design efforts and track improvements
- Refined corporate personas based on large quantitative and qualitative data collection in Europe that I
 managed personally; used cluster analysis and other data mining techniques for numeric data

Platform Product Design Manager

Autodesk, Inc. (architectural design software)

November 2005—January 2007

Waltham, MA

- Conducted quantitative research projects for product design and product management: Surveys, log analysis
 of product usage to inform design process and management (data mining done by me)
- Created processes, work deliverables, mentored to support new user-centered design focus for the division
- Hired for interaction design, visual design, contract work, and usability staff; managed external usability & design

Principal Usability Specialist

The Mathworks, Inc. (bio data tools)
Natick, MA

May 2004—Oct 2005

• Usability/design work for bioinformatics products, information visualization efforts for multi-dimensional data, and simulation products (joint patent pending from one project)

Adobe Systems, Inc. (Creative Suite products)

Senior Interaction Designer

Dec 2002—April 2004 Seattle, WA

♦ Interaction design spec authorship; mockups of workflow and dialog design for Creative Suite applications

• Cross-product design consistency for top priority complex customer problems: Color management, PDF workflow); these were "bullets on the box" for the CS2 release

Director of Research and Development

Axance.com (web usability)

March 2001—July 2002

Paris, France

- Expanded company expertise in user-centered design methodology and usability during product lifecycle
- Review and development of consulting proposals, methodology, test plans, reports, presentations; oversight
 of complex consulting projects; authorship of commercial proposals for international (multi-country) and
 more complex client projects
- ♦ Individual contributor on English-language projects for international clients, such as Renault and OpenTV; also provided expert consulting on several projects for Instant Messaging on mobile devices

Manager, UI and Usability Group / Individual Contributor

TiVo, Inc. (consumer electronics)

Alviso, CÁ

April 2000—December 2000

- Hiring (usability, UI, graphic designer and prototypers), employee reviews and general management
- Established relationships between market research efforts and usability/survey research
- Responsible for UI specification authorship, usability testing, & mentoring of junior usability staff

Senior User Interface Designer

Excite, Inc. (web portal)

Fall 1998—April 2000

Redwood City, CA

- Completed full design of three complex web applications, Excite Planner (calendar, address book, to do list, and notepad), Excite Inbox (mail and voicemail), Excite Invite (invitation service). Planner received industry awards for design, including favorable review in Forrester Report, and Inbox traffic increased by 30-50% after this redesign. (Note: Excite has since been sold and products have changed substantially.)
- Conducted some of the first in-house usability testing as part of design process; prepared and taught 1-day training course on UI and user-centered design process to product management staff (73 people)

Member of Technical Staff, HCI Research Group 1995—1998

AT&T Labs Research (spinoff from Bell Labs) Florham Park, NJ

♦ Development of Internet chat system interfaces and study of online community: chat, email lists, newsgroups

Part-time Employee/Consultant

SRI International

Spring 1991—1993

Menlo Park, CA

♦ Made modifications to English grammar and lexicon for a natural language system with Unix shell (perl)

TECHNICAL SKILLS and TOOLS

Design Tools

- ♦ Adobe Creative Suite
- ♦ D3.js
- ♦ P5.js
- ♦ Gephi (social networks)
- ♦ Tableau

Data Analysis / Mining

- R programming / graphs including ggplot2
- Python including libs like numpy, NLTK, gensim, matplotlib, scikit-learn, pandas, Jupyter notebooks

Other Tools

- ♦ Unix seq/awk/scripting
- ♦ EC2 / AWS
- ♦ Excel
- SQLs, Redis, MongoDB, some Spark...

PATENTS

"Viewer for Multi-Dimensional Data From a Test Environment," Patent awarded 2012 for work at The Mathworks (legal docket MWS-252), co-inventors James Owen, Jenifer Tidwell, Rong Chen, 2005.

"Methods and Apparatus for Establishing Configuration Settings Between Applications," Patent awarded 2010, from work at Adobe (legal docket ADO05-07(B095)), co-inventors Lars Borg, Manish Kulkarni, Ken Kameda, 2005.

SAMPLE PUBLICATIONS / PRESENTATIONS / ROLES

- 2016 Invited Speaker at DATO Data Science Conference (San Francisco, July)
- 2016 **Joint Statistical Meetings (JSM) Invited Panelist** (on data visualization, July)
- 2016 World Info Architecture Day Conference (Miami, February, on Text Visualization)
- 2016 Workshop on Text Analysis (Eyeo Conference, June, Minneapolis)
- 2015 Carnegie Mellon U, giving a visiting lecture on NLP and visualization for Golan Levin
- 2015 **NEASIST Conference** (Boston), talk on Interactive Data Visualization design
- 2015-16 **Co-Chair of OpenVis Conf** with Irene Ros (after 2 years on program committee)
 - 2014 Magick Codes (NYC unconference): An invited speaker on "Mining Dwarf Fortress for Stories"
 - 2014 The Graphical Web 2014 & The Bodleian (Oxford): Visualizing Topic Networks workshop
 - 2014 Reviewer for Pearson for draft of Visual Storytelling with D3 by Ritchie King
 - 2013 Harvard Librarians Data Science course: taught 5 classes on Excel and visualization
 - 2013 Data Science Weeks, Boston: talks on Interactive Vis, and Network Vis (in 2014)
 - 2013 **OpenVis Conf** in Boston, talk "Bones of a Bestseller" (visualizing fiction)
 - 2013 **Lean UX Conference,** NYC: Workshop on Web product analytics (intro to quant reasoning for usability)
 - 2013 **PyData (Python Data) Silicon Valley 2013:** talk on "Nodebox" for data visualization in python
 - 2013 Boston Predictive Analytics Machine Learning Tutorials: Taught Ggplot2 and IPython notebook, organized statsmodels and sklearn tutorial sessions
 - 2012 Strata NYC talk: "Beyond the Hairball" (network visualization techniques)
 - 2012 **Boston Predictive Analytics:** "A Fast and Dirty Intro to NetworkX and D3.js"
 - 2012 Invited Speaker at Graduate UIUC HCI Talks Series: "TV Fan Video Editing Network Evolution"
 - 2010 **Boston Mini UPA conference:** "Mining Your Data: An Easy Intro to a Tough Topic"
 - 2010 "I See Evidence of Research...What About Design?" Article in <interactions> sept + oct 2007
 - 2008 "Designing 'Up' in the Software Industry." An essay in HCI Remixed, collection edited by Tom Erickson and David McDonald, MIT Press.
 - 2008 Invited speaker at IBM Research, Cambridge (spoke on TV fan video editing communities)
 - 2006 Closing Plenary Invited Speaker at Group '05 Conference in Sanibel, Florida.
 - 2001 *Conversation and Community: Chat in a Virtual World*, CSLI Publications. **My book** about Internet chat and virtual community based on my dissertation work.
 - 1999 "The Dynamics of Mass Interaction," by S. Whittaker, L. Terveen, W. Hill, L. Cherny. **Paper** presented at **CSCW 98**, Seattle, still widely cited online today.
 - "Entertainment is a Human Factor: Game Design and CHI." Article by L. Cherny, C. Clanton, E. Ostrom. SIGCHI Bulletin, October 1997. Summary of Workshop at CHI (Computer Human Interaction) 97.
 - 1997 *Wired_Women: Gender and New Realities in Cyberspace*, Seal Press. **Co-edited book** with Elizabeth Reba Weise. This was a popular textbook choice!

EDUCATION

- 1990–1995 **Ph.D.** in Linguistics (with courses in HCI, computer science, ethnography)
 - Stanford University, CA
 - Dissertation: The MUD Register: Conversational Modes of Action in a Text-Based Virtual Reality. (Ethnography of an Internet "MUD" text chat community, later published as book available on Amazon)
- 1989–1990 M.Phil. in Computer Speech and Language Processing
 - Cambridge University (Trinity College), UK
- 1986–1989 **B.A.** in Linguistics (with courses in AI at Edinburgh University)
 - University of Maryland, College Park, MD