

What's Under the Big Tent? : A Study of ADHO Conference Abstracts¹

Scott B. Weingart (Carnegie Mellon University) and Nickoal L. Eichmann (Mississippi State University)

Abstract

This study identifies how the flagship Digital Humanities conference has evolved since 2004 and continues to evolve by analyzing the topical, regional, and authorial trends in its presentations. Additionally, we explore the extent to which Digital Humanists live-up to the characterization of being diverse, collaborative, and global using the conference as a proxy. Given the increased popularization of digital humanities within the last decade, and especially recent successes in popular press and grant initiatives, this study tempers the sometimes utopic rhetoric that appears alongside mentions of the term.

Introduction

“Digital Humanities” is a fraught term, on whose definition rests funding decisions, tenure lines, and institutional power dynamics. Its (or their) public face is multifaceted: New York Times articles,² museum exhibits,³ popular tools,⁴ and tech industry partnerships⁵ all contribute to how the Digital Humanities (DH) interacts with the wider world. In academic circles, the term is often associated with backchannel chatter,⁶ grey literature,⁷ and informal workshops and conferences.⁸ DH has too many definitions to be well-defined,⁹ but its influence is great enough to warrant an exploration of how it appears to newcomers, to scholars, and to the world. The annual Alliance of Digital Humanities Organizations (ADHO) conference provides one important vantage point whence to launch

¹ An extension of on work presented at the DHSI 2015 Colloquium by Nickoal L. Eichmann & Scott B. Weingart. The research began as a blog series by Weingart (see his blog, scottbot.net). A companion piece focusing on diversity at recent ADHO conferences by Nickoal L. Eichmann, Jeanna Jorgensen, and Scott B. Weingart is forthcoming.

² Cohen, Patricia. “Humanities Scholars Embrace Digital Technology,” November 16, 2010, sec. Arts. <http://www.nytimes.com/2010/11/17/arts/17digital.html>.

³ For example, see Quirk, Kathy. 2015. “Digital Humanities Lab launches first exhibit,” 23 January. *Today@UWM*. <http://www5.uwm.edu/news/2015/01/23/digital-humanities-lab-launches-first-exhibit/>

⁴ See for instance the citation management tool Zotero (zotero.org) and some widely used DH tools as seen in the DiRT Directory (dirtdirectory.org/).

⁵ “Our commitment to the digital humanities.” Blog. *Google Research Blog*. 14 July 2010

<http://googleresearch.blogspot.com/2010/07/our-commitment-to-digital-humanities.html>; and Kirschenbaum, Matthew G. 2007. “The Remaking of Reading: Data Mining and the Digital Humanities.” In *The National Science Foundation Symposium on Next Generation of Data Mining and Cyber-Enabled Discovery for Innovation*.

⁶ Holmberg, Kim, and Mike Thelwall. 2014. “Disciplinary Differences in Twitter Scholarly Communication.” *Scientometrics*, January. doi:10.1007/s11192-014-1229-3.

⁷ Huggett, Jeremy. 2012. “Core or Periphery? Digital Humanities from an Archaeological Perspective.” *Historical Social Research / Historische Sozialforschung* 37 (3 (141)): 86–105.

⁸ French, Amanda. 2015. “THATCamp, Me, and Virginia Tech Libraries.” *Amandafrench.net*. April 13. <http://amandafrench.net/2015/04/13/thatcamp-me-and-virginia-tech-libraries/>.

⁹ Terras, Melissa, et al (eds). *Defining Digital Humanities: A Reader*. Ashgate Publishing, Ltd., 2013. See also “What Is Digital Humanities?” (<http://whatisdigitalhumanities.com/>)

such an exploration.¹⁰ As the largest and most public DH-labeled event,¹¹ the conference reflects and constructs many of the visible contours of DH, even (or especially) when it fails to adequately represent all aspects of the community, the scholarship, or the pedagogy.

ADHO's first Digital Humanities conference was held in 2006, but it began in 1989.¹² This essay reflects on an ongoing quantitative analysis of this conference to trace its changing shape since 1989. The analysis serves two goals: to reveal how the conference shapes perceptions of DH, and to place its participants under the same quantitative scrutiny they themselves often practice. In the archetypal mold of such research, we present results in modest visualizations and simple statistics. Preliminary results reveal a growing conference, growing research team sizes, poor gender diversity, poor (but recently improving) regional diversity, and some shifts in topical focus of presentations. In light of recent controversies,¹³ we conclude ADHO's annual conference has more work to do in reflecting its broad constituency, though we save improvement suggestions for the companion piece referenced in Footnote 1.

Methods & Data

The annual ADHO Digital Humanities conference and its joint ALLC/ACH predecessor began in 1989. We collected schedules or programs from each, and are entering their contents into a spreadsheet to analyze trends across geography and time. By the writing of this piece, we have no data entered from before 2004. From 2004-2012, we entered presentation title, author names, author institutional affiliations (if provided), author country affiliations (if provided), author academic departments (if provided), presentation type (panel, poster, plenary, etc.), presentation text (abstract or full paper depending on availability), and keywords (if provided). From 2013-2015, we additionally collected data on conference *submissions*, including all the above fields, and differentiate those entries from those appearing on the final program. For 2004-2015, our data on the conference itself is limited to its city, country, and region.

During and after data collection, we hand-cleaned names, institutions, and departments, ensuring as best as possible that different people with similar names were given separate unique IDs, and the identical people with spelling variations in their names were given the same unique ID. We did the same for departments and institutions. We appended gender information (m/f/other/unknown) to authors by a combination of hand-entry and automated inference using Lincoln Mullen's "gender" package for R.¹⁴ This is problematic for many reasons,¹⁵ including a lack of diversity in gender options, the inability to encode gender changes over time, and the possibility of our matching incorrect genders to authors—especially those with names poorly represented on U.S. census and birth records. We are working to improve this process (see an extended discussion in our

¹⁰ Earhart, Amy. 2015. "Take Back the Narrative: Rethinking the History of Diverse Digital Humanities." 26 September. *Digital Humanities Forum 2015*. University of Kansas; Sugimoto, Cassidy R., and Scott Weingart. "The Kaleidoscope of Disciplinarity." *Journal of Documentation* 71, no. 4 (July 13, 2015): 775–94. doi:10.1108/JD-06-2014-0082.

¹¹ The ADHO DH conference draws publishers, students, faculty, librarians, museum curators, and archivists, among others. It is not always the most populated event (e.g., in 2014 DHSI itself hosted more attendees than ADHO's conference), but it is undoubtedly the highest-profile annual DH event.

¹² ADHO's Digital Humanities conference began as the joint ALLC/ACH conference, see <http://adho.org/conference>.

¹³ Self-identified digital humanists have become increasingly worried that they and their work are not adequately represented, a topic discussed at length at DH2015 (see Terras, Melissa. "Why I Do Not Trust Frontiers Journals, Especially Not @FrontDigitalHum." Blog. *Melissa Terras*, July 21, 2015.

<http://melissaterras.org/2015/07/21/why-i-do-not-trust-frontiers-journals-especially-not-frontdigitalhum/>).

¹⁴ See Lincoln Mullen's code, "Predict Gender from Names Using Historical Data," <https://github.com/ropensci/gender>

¹⁵ See a longer discussion of this from Posner, Miriam. 2015. "What's Next: The Radical, Unrealized Potential of Digital Humanities." *Miriam Posner's Blog*. July 27.

<http://miriamposner.com/blog/whats-next-the-radical-unrealized-potential-of-digital-humanities/>.

forthcoming companion piece with Jeanna Jorgensen), but feel even uncertain information is better than no information in this context.

Finally, we used a combination of Google Spreadsheets, Microsoft Excel, Notepad++, OpenRefine, and the R & RStudio development environment to collect and analyze the data for trends. We opt to present simple visualizations, counts, and comparisons rather than more rigorous statistical results in the interest of clarity, but at the expense of certainty. Readers should interpret these results as indicative rather than conclusive.

Findings

The number of presentations and unique authors at the annual conference has increased nearly every year in the last decade (see Fig. 1). Although the data do not appear in Fig. 1, preliminary analysis shows even greater acceleration in 2014 and 2015.

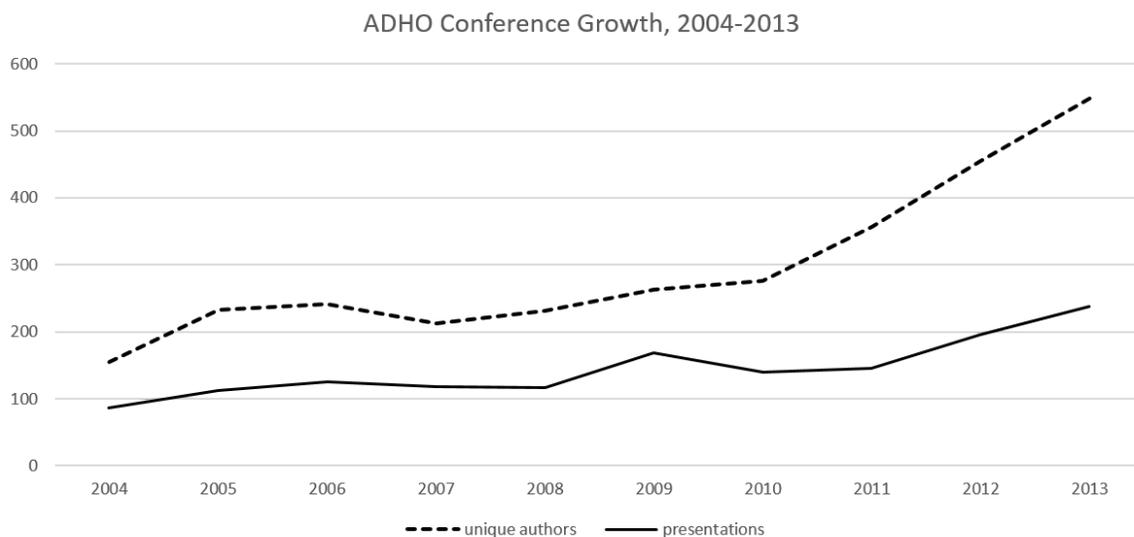


Fig. 1. Rate of ADHO conference growth over 10 years (2004-2013).

This matches other analyses of digital humanities¹⁶ showing increasing DH activity and participation across the board, with no signs of slowing down. The conference is healthy and attendance rotates, with $60 \pm 10\%$ of each year's authors never having attended previously. This suggests a core of about 200 authors, as of 2013, orbited by a constellation of disciplinary tourists (perhaps humanities or computer science researchers or librarians with one-off DH projects) and short-term collaborators on multi-authored projects. Although data for earlier years are unavailable due to privacy laws in many countries, data from the conference in Sydney, Australia in 2015 show that attendance and author lists do not perfectly overlap. Only 70% of pre-registered attendees were also authors of conference presentations. The other 30% of attendees, nearly 150 people, likely included local participants, ADHO committee members, university administrators, and industry professionals. Between attendees and authors, by 2015 we suspect a core community of around 300 returning participants, and a periphery numbering in the several thousands.¹⁷

¹⁶ See Terras, Melissa. 2012. "Infographic: Quantifying Digital Humanities." *UCL Centre for Digital Humanities*. January 20. <http://blogs.ucl.ac.uk/dh/2012/01/20/infographic-quantifying-digital-humanities/>

¹⁷ This matches with other numbers measured in late 2015: Over 8,000 registered users at <http://thatcamp.org>, over 20,000 followers of @DHNow on Twitter, etc.

That not every author attends, and not every attendee is an author, is itself unsurprising. The demographic difference between the two groups is worth mention, however. We found at DH2015 that ≈35% of authors were women, yet women comprised ≈46% of attendees.¹⁸ Work must be done to improve representation at future conferences to combat this disparity.

Topics

When submitting to the ADHO conference, authors must attach author-supplied keywords and ADHO-assigned topics to their presentations. Conference committees rarely made this data public before 2013, meaning topical analysis over the last few decades requires hand-coding or algorithmic assistance, neither of which are complete at the time of this writing. Preliminary results are available, however, combining coded data after 2013 (see Fig. 2)¹⁹ with anecdotal evidence from preceding years.

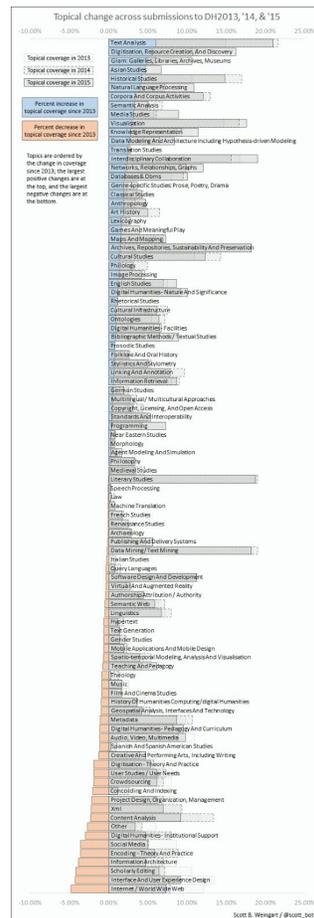


Fig. 2. Topical change at DH Conferences 2013-2015.

(<http://www.scottbot.net/HIAL/wp-content/uploads/2014/11/dh-topicalchange-2015.png> large version)

In recent years, ADHO presentations have shifted away from project-based to principle- and skill-focused topics. For instance, interface and user-experience design, scholarly editing, and information architecture, among other project-based topics, have declined. Conversely, text analysis, visualization, and data modeling have increased, especially in the last few years. The exception to this is the rise of topics associated with digitization and GLAM (Galleries, Libraries, Archives, & Museums).

¹⁸ See <http://www.scottbot.net/HIAL/?p=41355> for a more detailed discussion.

¹⁹ More exhaustive post-2013 topical analyses appear in Weingart's blog at <http://www.scottbot.net/HIAL/?tag=dhconf>

The most prominent topics covered recently have related to literary studies, text analysis/mining, visualization archives, and interdisciplinary collaboration. History, linguistics, philosophy, and gender studies have found a home at ADHO in the past, but their presence fluctuates, especially in comparison with the dominance of literary studies. This dominance should not be surprising given digital humanities' cultural origins,²⁰ though it often comes at the expense of representing other equally rich traditions combining technology with the humanities.²¹ Historical studies jumped from comprising 10% of presentations in 2013 to 17% in 2014, and down to 15% in 2015. It remains unclear whether this indicates random fluctuations, trends over time, or the differences between European and North American DH. Other recently growing topics include semantic analysis and cultural studies.

The most visible drops in coverage came in topics related pedagogy, scholarly editions, user interfaces, and research involving social media and the web. Between 2013 and 2015, the conference lost a quarter of its coverage related to pedagogy. "Scholarly Editing" dropped from 11% to 7% of the conference proceedings, and "Interface and User Experience Design" from 13% to 8%. Among the more surprising drops were those in "Internet / World Wide Web" (12% to 8%) and "Social Media" (8.5% to 5%). We mention these specifically because the trends are fairly clear across the three years for which we have data, and conform to our anecdotal knowledge of previous years.

Authorship

Between 2004 and 2013, nearly 2,000 total authors presented at ADHO, with the most rapid introduction of new authors after 2010 (see Figure 3). Even after taking the growth of the conference itself into account, new authors are appearing faster than we might expect. Figure 4 shows the rate of introduction of new authors normalized by the growth of the conference itself, such that values above 1 mean authors are entering the conference faster than the conference is growing. As a trend, the rate of new authors is increasing, suggesting the conference is becoming less insular, or perhaps there are more disciplinary tourists, submitting one presentation and never doing so again. The percentage of the conference who are returning authors is consequently decreasing, while the sheer volume of core authors is still slowly increasing. This suggests, possibly, that the ADHO conference is growing in popularity and encouraging more tourists faster than it is growing in core members.

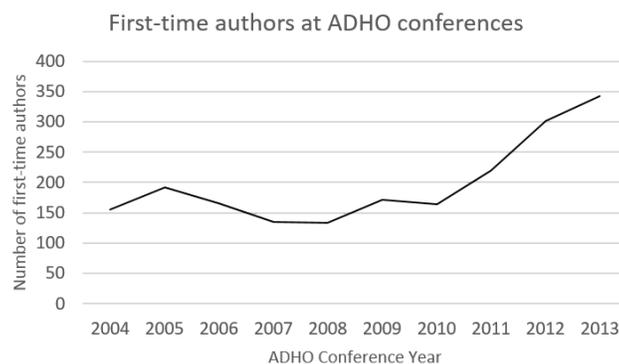


Fig. 3. Increasing number of authors at DH conferences who never authored at the conference before.

²⁰ Schreibman, Siemens, and Unsworth's *A Companion to Digital Humanities* (Blackwell, 2004) popularized the term Digital Humanities around a strongly literary tradition.

²¹ Examples of underrepresented communities include digital public history (e.g., Sharon Leon's 2015 *User-Centered Digital History* at <http://digitalpublichistory.org/>) and computational philosophy (e.g., Aaron Sloman's 1978 *The Computer Revolution in Philosophy*).

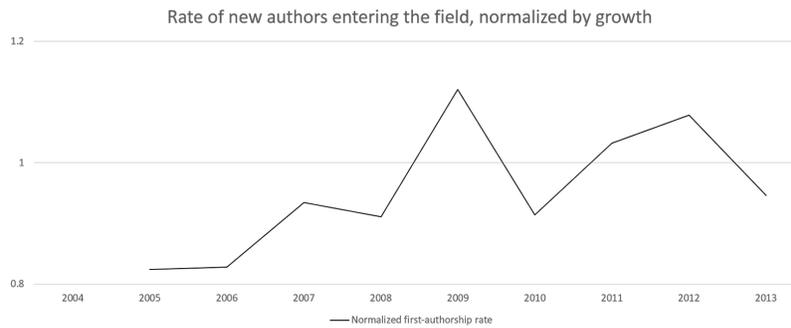


Fig. 4. First-authorship rate normalized by conference growth.

While DH often self-identifies as innately collaborative, our study indicates that presenters at ADHO remain close to their disciplinary humanistic roots in which single authorship is the norm. Over a third of presentations at every conference since 2004 have been single-authored. That number is decreasing, however, as the average number of authors per presentation steadily grows (see Figure 5).

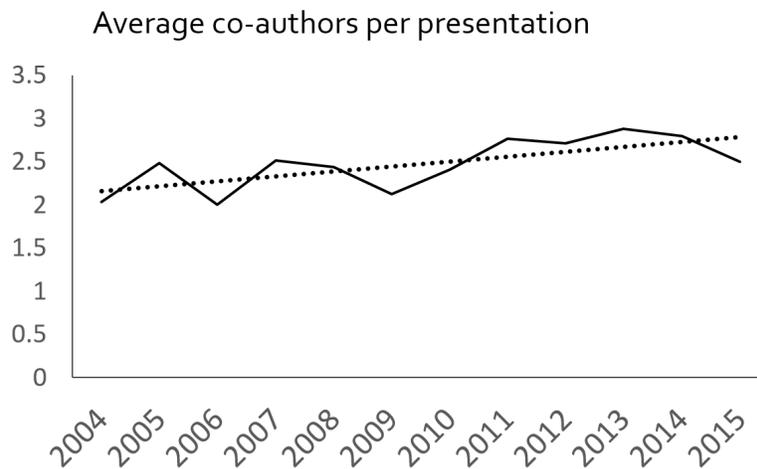


Fig. 5. Average number of co-authors on a single presentation in a given ADHO year.

Regional Diversity

Since ADHO is a collection of international organizations, we were interested in the regional diversity of conference authors. We inferred author countries based on their institutional affiliations (e.g., University of Victoria is coded as Canada) and clustered them by U.N. macro regional standards (e.g., Canada = Americas). Analysis shows the conference lacks regional diversity. Between 2004 and 2013, 1,056 authors were from the Americas (US: 851; Canada: 202; Mexico: 1; Peru: 1; Uruguay: 1), and 794 were from Europe (see Figure 6). Figure 7 shows the prominence of American authors occurred not only in the odd years during which the conference was held in the Americas (with $\approx 65\%$ American authors), but also in the even years when it was held in Europe (with $\approx 50\%$ American attendees). While the conference remains Americas-centric overall, regional diversity is on the rise, with notable increases of authors from Asia and Oceania, although no scholars from African countries appeared in this analysis.

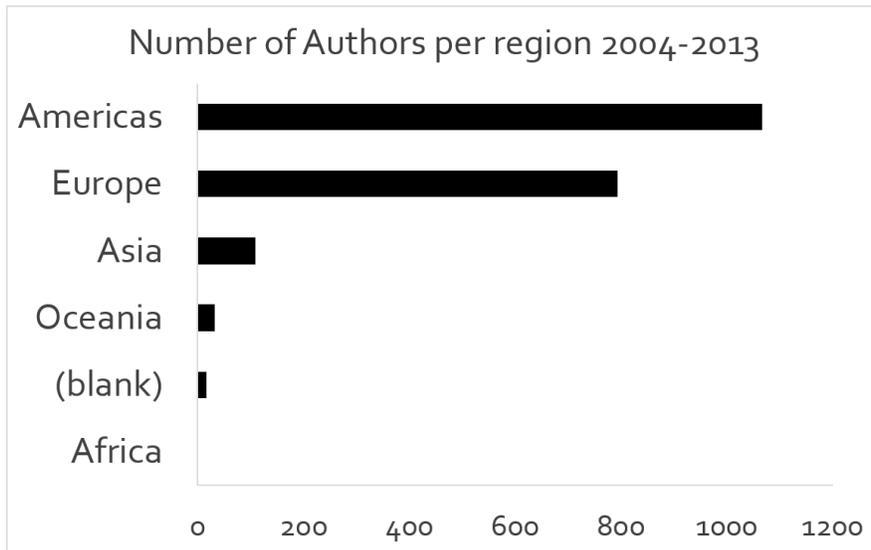


Figure 6. Authors per region 2004-2013

ADHO Conference Author Locations By Year

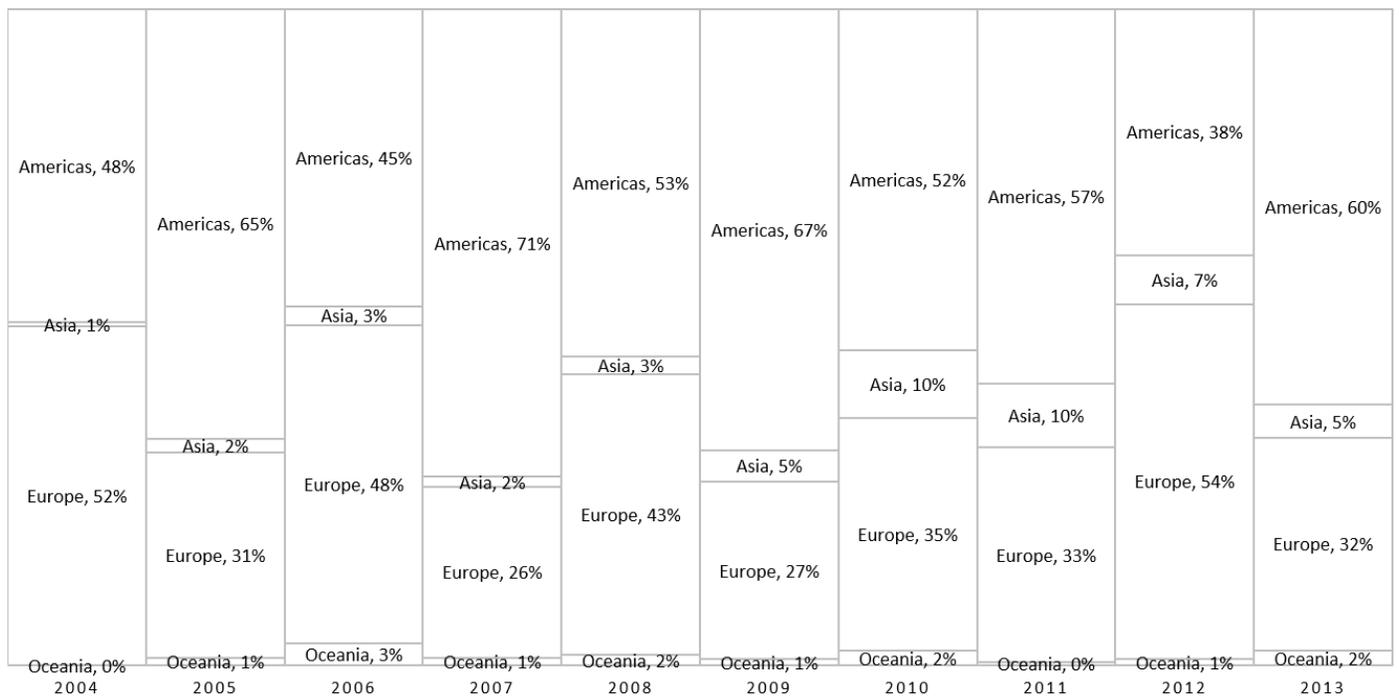


Figure 7: Country of author institutions to ADHO conferences 2004-2013.

Preliminary analysis shows greater regional diversity in 2014, and unsurprisingly the most diverse yet in 2015, when the conference was held in Sydney. We feel ADHO's decision to bring the conference farther afield was a step in the right direction.

Gender Distribution

With women playing increasingly central leadership roles in the DH community, we hoped to see similarly improved representation among ADHO authors. After coding for author gender, we looked at the percentage of

authors each year who were women, as well as the percentage of first authors who were women (see Figure 8). With minor fluctuations per year but an unchanging average over time, about a third of all authors from 2004-2013 were women. The ratio is only slightly (though consistently) better for first-authorships, such that a higher percentage of first authors were women.

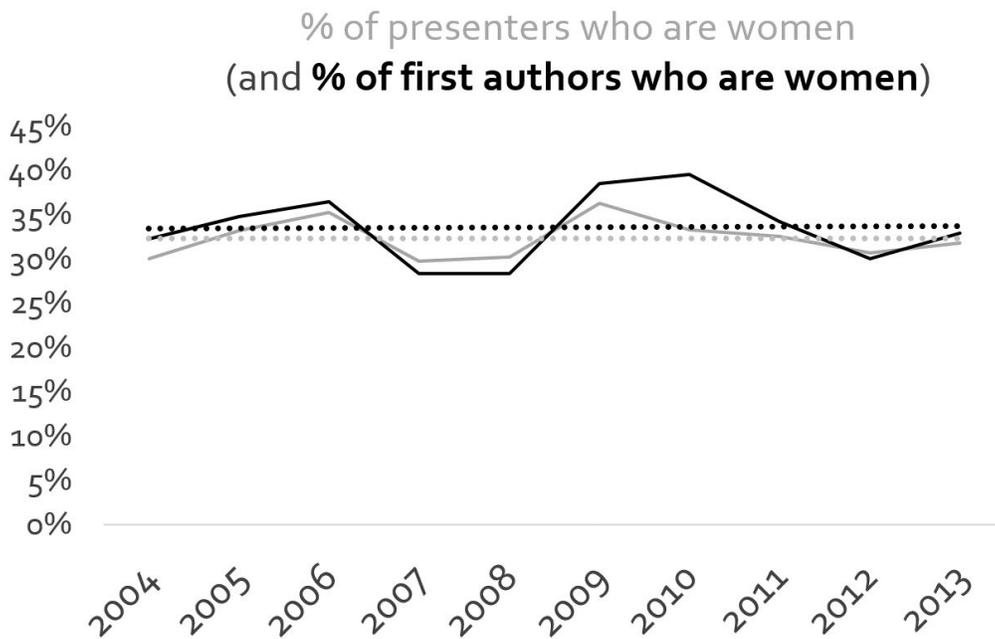


Figure 8. Percentage of female authors at each annual ADHO conference 2004-2013.

The critique may be raised that this is not a problem of representation, but of interest—but even if this were a valid criticism, it is not true in this case. As mentioned earlier, $\approx 35\%$ of DH2015 authors were women, $\approx 46\%$ of attendees were women. Thus attendees are not adequately represented among conference authors. From 2004-2013, North American men represent the largest share of authors by far.

Conclusions & Future Analysis

The data show that over the last decade, ADHO's international conference has become slightly more collaborative and regionally diverse, that text and literature currently reign supreme, and that women are underrepresented with no signs of improvement thus far. This is at odds with our everyday experiences with colleagues online and at home, who are more diverse and multidisciplinary than the annual conference reflects. We hope for ADHO to take this into account when organizing future conferences.

While the preliminary results are useful and telling, we continue to expand our dataset to include ADHO abstracts since 1991, and with that, we will look deeper into our initial findings. For instance, while we can anecdotally conclude that there has been a shift in the focus of topics presented at ADHO, from project- to skill-based, we plan to provide a quantitative assessment of these shifts over time and geography. It would be interesting to see how topics distribute geographically, to determine whether regional differences contribute to various differences over self-definitions of digital humanities. We also plan to analyze the relationships between new and repeat authors with topics and the fields they come from, as well as correlating topic with gender. Preliminary results suggest gender does skew what topic is being discussed, with topics more often written by women less likely to appear in the conference. Finally, we will open our dataset so authors can edit

their own information, allowing a more sensitive gender analysis beyond the male/female binary and taking into account the fluidity of the category over time.

References

- "Our commitment to the digital humanities." Blog. *Google Research Blog*. 14 July 2010
<http://googleresearch.blogspot.com/2010/07/our-commitment-to-digital-humanities.html>
- Cohen, Patricia. "Humanities Scholars Embrace Digital Technology," November 16, 2010, sec. Arts.
<http://www.nytimes.com/2010/11/17/arts/17digital.html>.
- Earhart, Amy. 2015. "Take Back the Narrative: Rethinking the History of Diverse Digital Humanities." 26 September. *Digital Humanities Forum 2015*. University of Kansas.
- French, Amanda. 2015. "THATCamp, Me, and Virginia Tech Libraries." Blog. *Amandafrench.net*. April 13.
<http://amandafrench.net/2015/04/13/thatcamp-me-and-virginia-tech-libraries/>
- Holmberg, Kim, and Mike Thelwall. 2014. "Disciplinary Differences in Twitter Scholarly Communication." *Scientometrics*, January. doi:10.1007/s11192-014-1229-3.
- Huggett, Jeremy. 2012. "Core or Periphery? Digital Humanities from an Archaeological Perspective." *Historical Social Research / Historische Sozialforschung* 37 (3 (141)): 86–105.
- Kirschenbaum, Matthew G. 2007. "The Remaking of Reading: Data Mining and the Digital Humanities." In *The National Science Foundation Symposium on Next Generation of Data Mining and Cyber-Enabled Discovery for Innovation*.
- Leon, Sharon. 2015. "User-Centered Digital History: Doing Public History on the Web." Blog. *Brackett*. March 3.
- Mullen, Lincoln. [N.D.] "Predict Gender from Names Using Historical Data," <https://github.com/ropensci/gender>
- Posner, Miriam. 2015. "What's Next: The Radical, Unrealized Potential of Digital Humanities." *Miriam Posner's Blog*. July 27.
<http://miriamposner.com/blog/whats-next-the-radical-unrealized-potential-of-digital-humanities/>
- Quirk, Kathy. 2015. "Digital Humanities Lab launches first exhibit," 23 January. *Today@UWM*.
<http://www5.uwm.edu/news/2015/01/23/digital-humanities-lab-launches-first-exhibit/>
- Schreibman, Susan, Ray Siemens, and John Unsworth. 2004. *A Companion to Digital Humanities*. Oxford: Blackwell. <http://www.digitalhumanities.org/companion/>
- Slovan, Aaron. (1978). *The Computer Revolution in Philosophy: Philosophy, science and models of mind*. Highlands, NJ: Humanities Press.
- Sugimoto, Cassidy R., and Scott Weingart. 2015. "The Kaleidoscope of Disciplinarity." *Journal of Documentation* 71 (4): 775–94. doi:10.1108/JD-06-2014-0082.
- Terras, Melissa, et al (eds). 2013. *Defining Digital Humanities: A Reader*. Ashgate Publishing.
- Terras, Melissa. 2012. "Infographic: Quantifying Digital Humanities." *UCL Centre for Digital Humanities*. January 20. <http://blogs.ucl.ac.uk/dh/2012/01/20/infographic-quantifying-digital-humanities/>.
- Terras, Melissa. 2011. "Peering Inside the Big Tent: Digital Humanities and the Crisis of Inclusion." Blog. *Melissa Terras' Blog*. July 26.
<http://melissaterras.blogspot.com/2011/07/peering-inside-big-tent-digital.html>.
- Terras, Melissa. 2015. "Why I Do Not Trust Frontiers Journals, Especially Not @FrontDigitalHum." Blog. *Melissa Terras*. July 21.
<http://melissaterras.org/2015/07/21/why-i-do-not-trust-frontiers-journals-especially-not-frontdigitalhum/>.