Tech Help Study Field Manual

Human agency towards digital inclusion: An international study of tech help networks

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Consultants: Abdul Alkalimat (USA), Lai Maosheng (PRC), Salvador Rivas (LUX)

What An effort to understand the transition to digital society from the bottom up. Research question is "How do ordinary people access and even provide help with technology? Or in other words, How do people around the world bridge their own digital divides?
A pilot of an international study carried out with students taking our classes

Why Need global data on a global phenomenon. Need methods that work on little funding. Need to activate students to produce knowledge and not only consume it.

Who Academics who can assign field work to students in their classes (4 organizers, 2 consultants, more partners)

When Fall 2019 and Spring 2020. Deadlines:
Aug 1/Jan 1: Organizers send final field instruments to partners (English and Chinese)
Dec 15/May 15: Partners send spreadsheet data to organizers
Feb 15/July 1: Organizers send basic analysis to instructors

Where China, USA, Norway, Trinidad, Korea, India, UK, Czech Republic

How Instructors and students are the researchers:

1) Identify a field site where people will welcome tech help
2) Schedule tech help sessions linked to interviews
3) Work in pairs to give tech help and also do 20-30 min interview
4) Complete consent form with study participant
5) One person interview, the other person enter answers verbatim into spreadsheet
6) Partners send spreadsheets to organizers
7) Organizers collate data and share basic analysis with all partners
8) Publish one or more papers following data use policy

Mutual assistance is a kind of good nature of human beings, and it is also a good informal institutional arrangement in the field of social assistance. On the way to the snowy mountain during the Long March, when a Red Army soldier ran out of food, others around him would share him some. Nowadays in the information society, ICT has gradually become a necessity for everyone. Bridging the digital divide also requires a good role in the various community mutual aid mechanisms. It is a very meaningful job to investigate the mutual help experience of various types of people in the process of ICT access and use. It will play an important role in bridging the digital divide, enhancing the quality and competence of each member of society, and promoting global reach and cooperation, and furthermore the development of community informatics.

互助是人类的一种善良天性，也是社会保障和社会救济领域一种非常好的非正式的制度安排。万里长征过雪山草地途中当某个红军战士断粮时身边其他战士都会匀给他一些粮食。在今天信息社会，ICT 也逐渐成为每个人的生活必需品。缩小数字鸿沟也非常需要发挥好各种群体互助机制的作用。调查各类人群在 ICT 接入和使用过程中的互助经历，是一件很有意义的工作。它将为缩小数字鸿沟、提升每个社会成员的素质能力以及推动全球范围和合作，促进社群信息学的发展发挥重要的作用。

—Professor Lai Maosheng, Peking University

Conceptualization of research

Note: Brackets [ ] indicate data sourced otherwise than through interviews.

Research question: How do people access and provide help with digital technology?

Independent variable: People

Dependent variable: The informatics moment

People:

1. Country: Profile of economics, digital divide measures, digital divide policies [from national survey data, census data, OECD data, and researcher's knowledge of policies; one profile per country]
2. Setting: social, economic, and demographic profile of local community and organization granting us access [One profile per locale]
3. Demographics: CLASS/SES i.e. work/retired/in school, occupation, income, education attained, AGE by decade, GENDER m/f, ETHNICITY, HOUSEHOLD i.e. solitary, partner, children, group home, LOCALE i.e. urban/rural
4. Informatics lifecourse: Individual's history with digital technologies: start-up, distinct phases of use, purpose(s) of use?
5. Ownership and use of digital technologies?
6. Places of use: home, work, school, other (specify)?

Informatics moment:

1. Who helps you: demographics, nature of connection to them, why them?
2. Who do you help: demographics, nature of connection to them, why them?
3. Stories of informatics moments you have experienced
4. Enough help/not enough help?

Sample:

Convenience sample. Sample size determined by class size. Two interviews per researcher, done in pairs by on campus students, solo by distance students. Odd number of students in class can do interviews either solo (keeping notes AND talking) or in a team of three.

Data, communications, and publishing policies

Data use policy. Instructor can use his or her students' data, referring by name to the TECH USE dataset and citing one of two articles which will lay out the study itself. One will be in Chinese and the other in English. The English article will most likely be in *First Monday* (http://firstmonday.org).

The organizers will draft a paper analyzing the entire dataset, putting all partners as co-authors. The data cannot be shared outside the group of partners.

Data collection policy. We are guided by the US Institutional Review Board policies that are mandated for all US university researchers and their international partners. Partners and all US-based students must complete the IRB training via the University of Illinois or their own campus, sending certificates of completion to the organizers. Students outside the US have to learn the basics of IRB regulations from their instructor.

Data cleaning. Data is to be cleaned by the researcher, checked by the instructor, rechecked by the organizers, and managed by Shenglong. Researchers clean, translate, and send data to instructors, instructors check and send to Shenglong by email to cilab@lists.illinois.edu for rechecking and further use.

Guide for data cleaning:

1. Each field in the dataset should have a clear definition before submitting. An instruction should be included as the first page in the spreadsheet.
2. All the blank values should be filled as "not mentioned."
3. All the values in the dataset should be translated into English first when collected in non-English countries.
4. If needed, English values in the dataset should be translated to the languages in other non-English countries by non-English speakers.

Data security. Data and other research documents will be organized and kept on a virtual server (http://dorrstreet.org/cilab), backed up regularly.

Project communications. The organizers can be reached at cilab@lists.illinois.edu. The entire project will use the wechat group TECHUSE. Please do not hesitate to use either channel!

Policies on GLOBAL TECH HELP NETWORKS data set

1. Data submission. Research partners use the field instruments (spread sheet template)

provided by the organizers to collect data in the field, and submit the clean data in a moth. The data should include the spread sheets, and recordings, photos, and transcribed and translated text if available. The data will then be uploaded onto the ftp space.

2. Data usage
   (1) The partners can
   - use the data produced by themselves freely.
   - use the data produced by others through application.

   (2) Non-partners can use the data through application and authorization.
   (3) All usages should indicate the data source as "GLOBAL TECH HELP NETWORKS data set" in their publications.

DOCUMENTATION STANDARDS for TECH HELP NETWORKS

1. Name structure of each research data file

Structure: abbreviation of partner's name + 4-digit serial number + 8-digit date
Example: HSL-0001-20190910.xlsx stands for the first data file done by Shenglong's team on September 10, 2019
Note: there is a folder for each research data file to hold related audio/visual/text information if available

2. Name structure of each index file

Structure: abbreviation of partner's name + "INDEX"
Example: HSL-INDEX.xlsx stands for the index file of Shenglong's data files

3. Record structure of the index file

Field name	Meaning
No.	Serial number
Filename	name of each research data file
Interviewer	name of the interviewer
Interviewee	name of the interviewee
Recorder	name of the audio recorder
Photographer	name of the visual recorder
Transcriptor	name of the audio-text transcriptor
Translator	name of the translator（if translation happens）
Location	location of the interview
Date	date of the interview
Start-time	starting time of the interview
End-time	ending time of the interview
Note	anything else related to the interview that needs to be filed

List of participants

Organizers

1. Hui Yan, Associate Professor, School of Information Resource Management, Renmin University of China, hyanpku@ruc.edu.cn, wechat: 18618449209
2. Noah Lenstra, Assistant Professor, Department of Library and Information Studies, University of North Carolina Greensboro, njlenstr@uncg.edu, wechat: noahlenstra
3. Kate Williams, Associate Professor, School of Information Sciences, University of Illinois at Urbana-Champaign, katewill@illinois.edu, wechat:katewilliamsnow
4. Shenglong Han, Associate Professor, Department of Information Management, Peking University, hansl@pku.edu.cn, wechat: pkuiucicu

Partners present in D.C.

1. Wenjie Zhou, Professor and Associate Dean, Business School, Northwest Normal University, wj_lp@sina.com, wechat: 18215193600
2. Xiudan Yang, Professor and Chair, Department of Information Management Engineering, Hebei University, poshyang@126.com, WeChat: 13582826536
3. Zeqian Chen, Associate Professor, Department of Information Management Engineering, Hebei University
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9. Pu Yan, Doctoral Student, Oxford Internet Institute, Oxford University
10. Andreas Vårheim, Professor, Department of Language and Culture, University of Tromsø/UiT The Arctic University of Norway, andreas.varheim@uit.no
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15. Radhika Garg, Assistant Professor, School of Information Studies, Syracuse University, rgarg01@syr.edu

16. Itzelle A Medina Perea, Sheffield University, iamedinaperea1@sheffield.ac.uk
17. Timothy M. Richards, Lecturer, UMD iSchool, University of Maryland, timothyr@umd.edu
18. Barbora Drobikova, Czech Republic, Barbora.Drobikova@ff.cuni.cz
19. Rachel N. Simons, Ph.D. Student in Information Studies, The University of Texas at Austin, rnsimons@utexas.edu

Partners not present in D.C.

20. Jongwook Lee, Assistant Professor, Department of Library and Information Science, Kyungpook National University
21. Bo Xie, Professor, University of Texas at Austin, boxie@utexas.edu
22. Aiko Takazawa, Doctoral Candidate, School of Information Sciences, University of Illinois at Urbana-Champaign, aikot@illinois.edu
23. Kyungwon Koh, Associate Professor, School of Information Sciences, University of Illinois at Urbana Champaign, kkoh@illinois.edu
24. Sanghee Oh, Assistant Professor, Department of Library and Information Science, Chungnam National University, sanghee.oh@cnu.ac.kr

Consultants

1. Abdul Alkalimat, Professor Emeritus, School of Information Sciences, University of Illinois at Urbana-Champaign, mcworter@illinois.edu
2. Lai Maosheng, Professor Emeritus, Department of Information Management, Peking University, laims@pku.edu.cn
3. Salvador Rivas, Research Scientist, University of Luxembourg, salvador.rivas@uni.lu

Tools and technology

1. Joining

- Questionnaire at workshop modelled on email sent to starting partners
- Wechat list for all partners questions and discussion
- http access to needed files / email delivery of data to organizers
- Email contact for organizers
- Training in ethical research standards (IRB)

2. Participating

- Field manual in English and Chinese
- Field tools include confirmation letter to site, consent form, interview questions, spreadsheet for data collection (all in English and Chinese)
- Partners translate field tools into local language as needed

3. Collecting data

- Recruit site and schedule field time, confirm with letter
- Train students with role play and IRB or similar training
- Collect spreadsheets and consent forms

4. Sending data to organizers

- If needed, partners translate data from local language in English or Chinese
- Partners send consent forms and data in spreadsheets to filespace by ftp

5. Accessing global dataset

- Collated data and basic analysis from organizers in Chinese and English
- Download dataset by ftp

Interview questions

1. The first questions are about what devices you own and use. You might use something that you own or something belonging to someone else.

Interviewer recite the list slowly while the recorder enters own, use, use other's or none

…a land line phone, that is, the original home phone?

…a basic cell/mobile phone?

…a "smart" cell/mobile phone (that does more than call and text)?

…a scanner?

…a printer?

…an Mp3 player or ipod?

…a Smart TV?

…a DVD or Bluray player or recorder?

…a GPS device for the car (an interactive mapping device)?

…a digital camera?

…an iPad?

…a "Surface" tablet (made by Windows)?

…a Kindle reader?

…a Nook reader?

…another kind of tablet or reader?

…an Apple laptop computer?

…an Apple desktop computer?

…another kind of laptop?

…another kind of desktop?

And finally, any other digital tools I haven't asked about?

2. Now for the thing s you use. Tell me if you would like to use any of more, but something's keeping you from that. And please tell me what it is that is holding you back.

Interviewer recite slowly the list of devices in use again. What's holding them back may become a story, and that's great.

Recorder type as close as possible to in words of the speaker. Ask them to repeat or wait for you to type if you need to.

Interview prompt them with comments like: "That's interesting." "Explain that some more." "What do you mean?" and repeat "What is holding you back on this one" as needed.

3. Now, more generally would you say that you have enough help with using these devices we've been talking about, or would you like to have more help. (enough or more)

4. Tell me more about that. Tell me about a time when you were trying to do something and either had some good help or where you needed help.

Interviewer prompt as needed to help speaker to explain:

What were you trying to do?

Who helped or tried to help you?

Why did you turn to them for help?

What did that person/s do?

5. In general, who do you turn to for help with technology, how do you know them?

Recorder create a list with any description the speaker gives.

6. Now, turning things around, have you yourself ever helped someone else with their digital devices?

Recorder enter yes or no.

7. (If yes) Tell me about a time when you were helping someone else.

I'm hoping you can tell me a story about when this happened.
Interviewer and recorder: Get the details of what they tell you. Prompt them as needed to explain:

Who did you help?

What were they trying to do?

Why did they come to you?

What did you do?

8. Here are some reasons that people use digital devices. Do any of them apply to you (and your spouse)?

Recorder enter yes or no for each reason.

Staying connected with family or friends?

Watching or recording videos, movies, or TV shows?

Listening to or making music?

Playing games

Reading articles or books?

Keeping up with events or weather?

Getting direction or maps?

For better health?

Making art?

Pursuing other hobbies?

Writing?

Doing work?

Now wrapping up and thinking about the future.

9. What might you like to do in the future with technology:

Use any particular device?

Any particular new things you'd like to start doing digitally?

Anything particular you'd like to learn about?

OK, last few questions.

Gender, Age, Nationality, Class.

10. Can ask or observe: Male or Female?
11. What year were you born?
12. What is the size of your household?
13. Is it family or roommates or both?
14. Would you describe where you live as:
    A big city?
    The suburbs or outskirts of a big city?
    A town or small city?
    A country village?
    A farm or home in the countryside?

15. How many years of formal education have you completed?

16. Could you tell us one or two of these that you feel identify you:
    your first language?
    other languages spoken?
    country of birth?
    country of residency?
    ancestry or ancestries (up to two)?

17. What of these have you been doing this past week:
    paid work?
    education?
    unemployed, that is, wanting a job?
    permanently sick or disabled?
    retired?
    community or military service?
    housework or at home caring for children or others?

18. Tell me how you feel about your household income nowadays:
    living comfortably?
    coping?
    finding it difficult
    finding it very difficult?

19. If you are doing paid work, what category is it from this list?

Can explain "There may not be a perfect fit to this list, just choose what you think fits best.."

Professional and technical occupations *such as:* doctor – teacher – engineer – artist – accountant	01
Higher administrator occupations *such as*: banker – executive in big business – high government official – union official	02
Clerical occupations *such as:* secretary – clerk – office manager – book keeper	03
Sales occupations *such as:* sales manager – shop owner – shop assistant – insurance agent	04
Service occupations *such as:* restaurant owner – police officer – waiter – caretaker – barber – armed forces	05
Skilled worker *such as:* foreman – motor mechanic – printer – tool and die maker – electrician	06
Semi-skilled worker *such as:* bricklayer – bus driver – cannery worker – carpenter – sheet metal worker – baker	07
Unskilled worker *such as:* labourer – porter – unskilled factory worker	08
Farm worker *such as:* farmer – farm labourer– tractor driver– fisherman	09

Confirmation letter

[on university stationery if possible, but email is OK too. Adapt to your comfort.]

Hello,

Thank you for allowing me to learn from your organization and its patrons. Our goal is to find out how people access and even provide help with new technology. My students and I will work in pairs, first interviewing someone and then providing them with any needed tech help. The process should take about 20-30 minutes. We will work at your and their convenience and we thank you for helping us with scheduling.

[two sentences about global nature of study and intent to share results back to them]

We can help people with their phone, tablet, or computer, or address any other tech issues. The research is optional, voluntary, and confidential. It is also low-risk and worthwhile.

A very modest thank you gift goes to each participant.

Thank you,

[partners name and contact info]

Consent form

Hello, We're from the University of Illinois, from the Tech Volunteers Program. (Interview and recorder give your names.) Clark Lindsey invited us to investigate the technology and the technology help here in the Village. We would like to ask you a few questions. It should take less than 15 minutes. And if now's a bad time we could set a time for me to come back later. Can we do this?

[Give them a moment to decide, and if not proceeding immediately, set a time and place to do it and tell them you'll see them then. Jot their name, time and place on your household list. If immediately, proceed as below.]

OK, thanks. Before we start, I want to more formally ask for your consent to proceed. This is university research that aims to understand elders, technology, and tech help. I hope to speak with you about these topics for about 15 minutes or less and write down your comments and answers to my questions.

At the request of CLV staff, a team of U of I faculty, staff, students are asking each CLV household these same questions. We will share the aggregate data with CLV to help them serve you better.

Our questions are not intrusive. And we will not share individually identifiable data with Clark Lindsey Village or with anyone else, only a summary analysis. So your participation and your comments are confidential and anonymous.

You don't have to participate at all. You don't have to answer every question. You can tell me to stop the interview anytime. Doing this interview is, we think, no more risky than everyday life. And it has two benefits. One, researchers will learn about the realities of older adults and their technology use. Two, Clark Lindsey staff will use the summary results to serve residents better.

If you want to contact us or reflect later on what I've just said, I'm giving you a copy of this sheet. You can direct questions to the research director Associate Professor Kate Williams, 419-215-2563 or katewill@illinois.edu or the department that approved this research, the IRB. If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at 217-333-2670 or via email at irb@illinois.edu.

Having said this, is it OK to proceed?

[Fieldworkers record their yes or no answer below, say thank you. Write your names, sign and date. If yes, give them the small gift. Explain "We're just saying thank you for your time and expertise." Then proceed.]

_____

Yes or No Interviewer name Interviewer signature Date

_____

Recorder name Recorder signature

Appendix

iConference Workshop Proposal / September 2018

Title: Human agency towards digital inclusion: Implementing an international study of tech help networks

Organizers (All organizers and participants will register for iConference)

1. Hui Yan, Associate Professor, School of Information Resource Management, Renmin University of China
2. Noah Lenstra, Assistant Professor, Department of Library and Information Studies, UNC Greensboro
3. Kate Williams, Associate Professor, School of Information Sciences, University of Illinois at Urbana-Champaign
4. Shenglong Han, Associate Professor, Department of Information Management, Peking University

Abstract. A workshop to finalize and recruit people to an international study of technology helpsharing in the digital age. This help is crucial and ubiquitous among elites; what about ordinary people? By sharing and finalizing a field manual and instrument among scholars with highly varied access to study populations, we will be ready to implement a three year study that will shed light on human agency towards digital inclusion. Individual scholars will work in their own settings with a shared field manual and instrument, carrying out a short field study with students in one of their courses or with their research groups. The 2019 iConference with its emphasis on "Including," its inclusion of community informatics research since 2005, and its broad membership of many country's schools and programs, is the best place from which to launch this three-year study.

Description.

Purpose and intended audience. We propose a three-hour workshop for 24-32 participants falling under the iConference priority of "Including." This workshop will discuss and finalize an international research study into technology help: How ordinary people in a variety of settings and demographics access and even provide help with technology in their daily lives. It is an approach to understanding human agency in the face of digital inequality.

Eleven confirmed participants come from 11 universities in the US, UK, and China. We will attract others to learn about the study and join in as well. Anyone else interested in discovering and solving information problems in communities and among specific social groups, including marginalized groups, will be welcomed. Those scholars and students in fields of community informatics, public libraries, information behavior, and human computer interaction are urged to join the workshop and gain hands-on global research experience.

Format. Sessions in the half day will include 1) panel, 2) breakout groups, and 3) whole-group

discussion. First, the proposers will present a rationale and review the draft field manual and interview instrument (9-9:50 am, if the workshop is scheduled in the morning). These documents will be available in advance of the workshop and that same day. Second, everyone will split up into smaller groups to share input on the drafts (10-10:50 am). Third, everyone will reconvene in a whole-group session to hear key points from the breakout groups, identify any outstanding issues, and recognize new partners (11-11:50 am). (Confirmed participants will have already shared their related past research via a workshop website.)

Goals or Outcomes. An expanded group of committed partner-researchers. Detailed notes for a finalized field manual and instrument that organizers will use to assemble final documents and launch the study via a project website. The major objective is a three-year coordinated research project resulting in peer reviewed publications and a higher profile for the field of Community Informatics, facilitating further support and research.

An additional objective of the workshop is to continue to expand the field of community informatics into China. This field developed first in the US, Canada and the UK. Scholars visiting the US discovered the work and introduced it into the ischools of China. (Williams et al. 2012) Individual researchers have published literature reviews and empirical studies. This is an opportunity to undertake coordinated research that draws power from numbers and from an international span, acknowledging and connecting with the extensive English language literature in this and related areas.

Relevance to iConference 2019. The theory and subject of the workshop falls under the conference theme of Including, and so does the method. With regard to theory and subject, the proposed study emerges from community informatics, which we have helped represent at iConferences since 2005. This work has found that ordinary people seek out technology help intermittently and repeatedly throughout their lives, and this can be especially crucial for populations who are unable to access formal IT help organization through school, work, or the marketplace. The work advances our understanding of digital inequality, emphasizing human agency. Four concepts drive this. One, informatics moment: the episode of helpgetting that people often need to engage in to complete work or life tasks using digital technology. (Williams 2012b) Two, informatics lifecourse: the unique pattern of informatics moments in a person's life impacted by their life changes – job changes, household moves, and changes in social support networks. (Lenstra 2016, 2019) Three, digital poverty: a composite measurement of a person's access, use, awareness, and skills that enable productive use of these new tools. (Wang and Yan 2013; Yan 2018) And four, social capital: people relying on their social networks to access and importantly to share tech help, rather than formal channels such as public agencies, workplaces, or the marketplace. (Williams 2012a)

'Including' in our method has two aspects. One, providing service along with gathering data, tech help along with each interview. Two, including LIS/IM students to carry out one or more interviews/help sessions as part of coursework with one of the researchers. Students thus learn basic social science field methods and the basics of helping others with digital technology, modeling citizenship in the digital age. These tasks are chief among those that information professionals are asked to do at reference desks and elsewhere in our information institutions. This aspect of our

method can be summarized as turning the classroom from a site of knowledge consumption to a site of knowledge production.

This workshop is designed to appeal especially but not only to junior scholars (doctoral candidates and assistant professors) who are looking for research projects that complement their solo work and result in datasets and joint publications. The study design to be presented will include a field handbook and an instrument. The populations that each partner will study will vary widely, but we expect to focus on adults of various demographics with respect to age, gender, education, occupation, urban/rural, and country of residence. The driving ideas of the project from the workshop organizers will be augmented from those of the proposers to include other ideas from information behavior, human-computer interaction, library science, and internet research, depending on those who attend the workshop and join the project. So we expect to better knit together a network of scholars across the iSchools.

The study will span three years. Calendar year 2019 will be recruiting researchers and fine tuning the research design. The year 2020 will be field work. And 2021 will be data sharing and report out. We hope to see presentations and publications by individual researchers and by the entire team, facilitated by sharing of data and by a second workshop at the 2021 iConference.

Funding. A grant from China's National Office for Philosophy and Social Sciences will cover translation and any incidentals for the workshop. The partners will pay for their own travel, data collection, and analysis. "Classroom as site of production" means that data can be collected in one or two semesters by each researcher working with a course full of students.

Works Cited

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