A Survey on the Fate of Digital Footprints after Death

CARSTEN GRIMM* AND SONIA CHIASSON

CARLETON UNIVERSITY, OTTAWA, ONTARIO, CANADA

Digital Footprints and Death

Digital Footprints

pictures and videos, blog, social media, wikis, game achievements and high scores, chat logs, forums, ...

When we die ... unresolved questions arise

inheriting accounts? trusted executors? policies for retiring accounts? privacy of the dead? online mourning?

Death Related Online Services

"[Our service] will let you stay active online from beyond the grave"

"If something were to ... happen ... to you, your switch would then send the emails you wrote to the recipients you specified"

"We do the research, investigate, write letters, crack passwords, create archives, and hand the *product* to you, risk-free"

Dying Death Service Dilemma: 8 of 18 vanished since 2010

Towards a Solution?

Unified Online Service

- authentication during lifetime
- inheritance, purging, and curating after death
- Locasto, Massimi, and De Pasquale (NSPW 2011)

Design Challenges

business model? deployment method? how to assert death? technical realization? legally binding? features?

Research Questions: Asking End-Users

- 1. Relevancy of preparing for death?
- 2. Familiarity with death related online services?
- 3. Preferences for fate of digital footprints after death?
- 4. Whom to entrust with curating one's digital footprint?
- 5. Design challenges for a unified service?

Methodology

STRUCTURE OF THE QUESTIONNAIRE,
RECRUITMENT VIA CROWDFLOWER

Online Questionnaire

Part 1: Demographics

age, gender, education, religion, number accounts, ...

Part 2: Preferences

Fate of Digital Footprints? Differences by account type? Trusted Executors? Provider for unified service? Features for unified service? Asserting death of a client?

Part 3: Experiences (optional)

Participants and Recruitment

Crowdsourcing Workers as Participants

100 from each of United States, India, Great Britain, and Asia* recruited from NeoBux, CliXSense, ..., Amazon's Mechanical Turk, ... Answers collected within 7 days during November / December 2013

CrowdFlower as Recruitment Agency

hosting survey, posting announcements, compensating participants safeguards against dishonest participants

*Vietnam, Laos, Philippines, Indonesia, and Singapore

Results & Analysis

DEMOGRAPHICS, PREFERENCES

Demographics: Overview

Age, Gender, Education, Occupation, ...

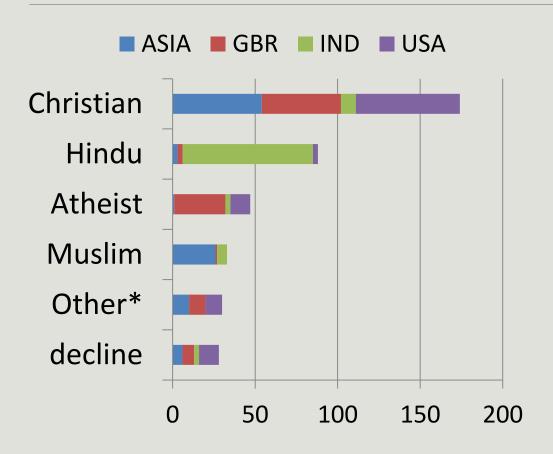
ages 18 to 69, mean 34.78, std 10.80 176 female (44%), 215 male (54%), 9 decline (2%)

... more details in the paper ...

Worker Channels

126 NeoBux, 98 ClixSense, 42 Prodege, 42 instaGC, 92 other only 2 from Amazon's Mechanical Turk

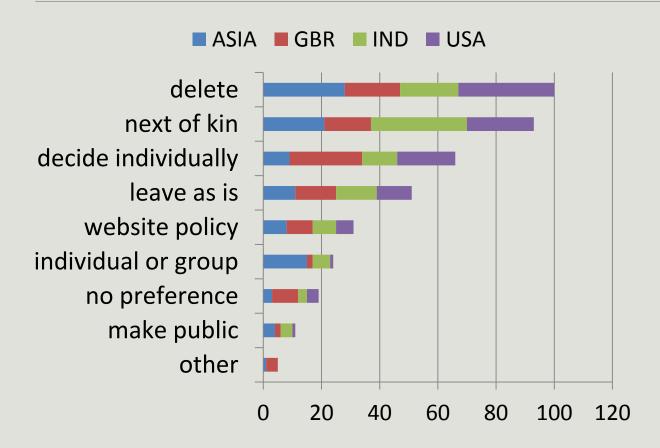
Demographics: Religions



What is your religious affiliation?

- Christian
- Muslim
- O Hindu
- Jewish
- Buddhist
- Atheist
- decline to answer
- other (specify below)

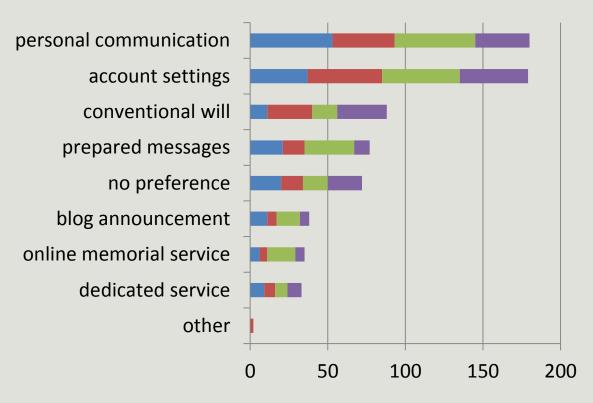
Fate of Digital Footprints



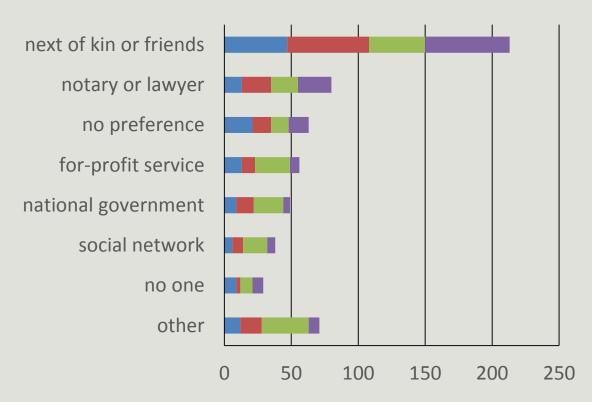
Туре	Option	#
social media	delete	167
	next of kin	68
	leave as is	68
blog	next of kin	126
	delete	91
	leave as is	72
dating	delete	284
pictures	next of kin	198
	delete	59

Communication and Trust

COMMUNICATING PREFERENCES



TRUSTED EXECUTORS



Unified Service: Provider

Assume there was an online service offering to handle your digital footprint after your death according to your specifications. This service ...

... should be run by a national government agency

1 2 3 4 5 6

strongly disagree

0 0 0 0

strongly agree

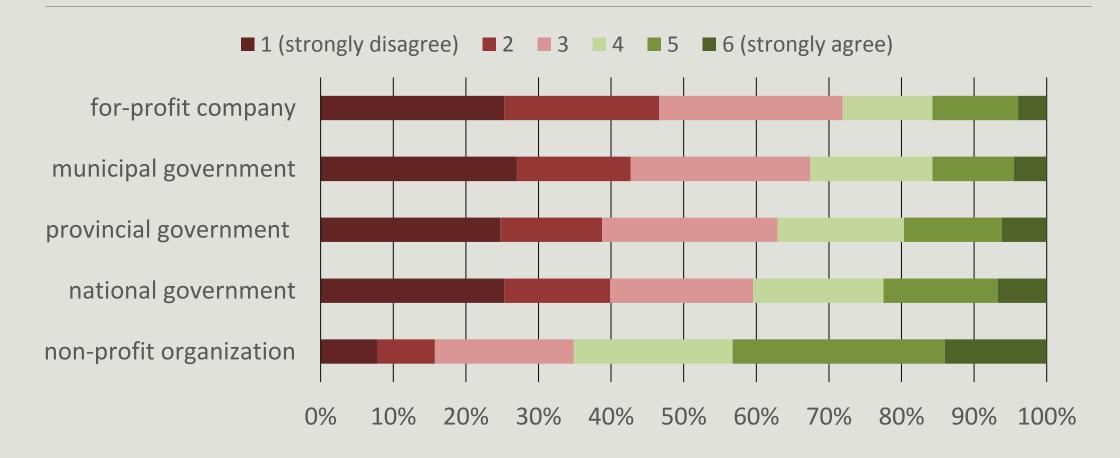
... should be run by a provincial / state government agency

1 2 3 4 5 6

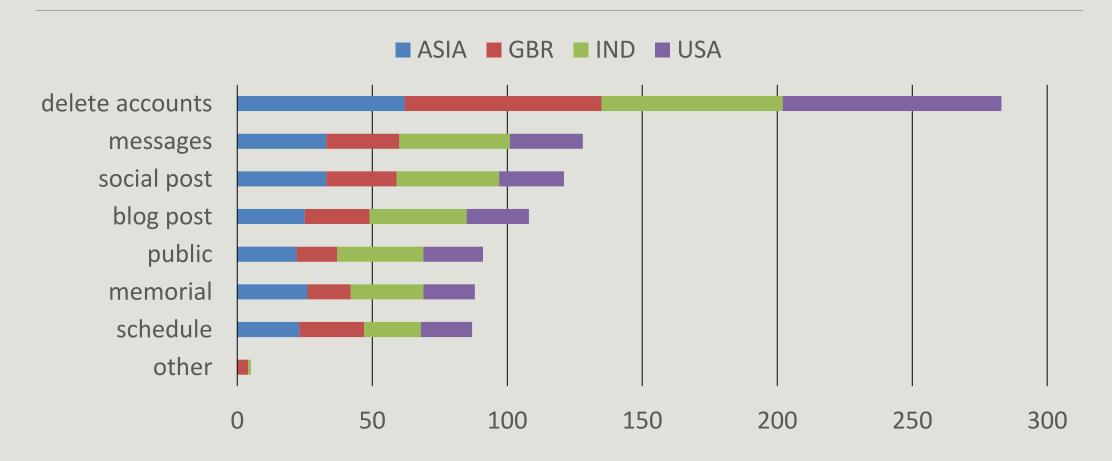
strongly disagree

strongly agree

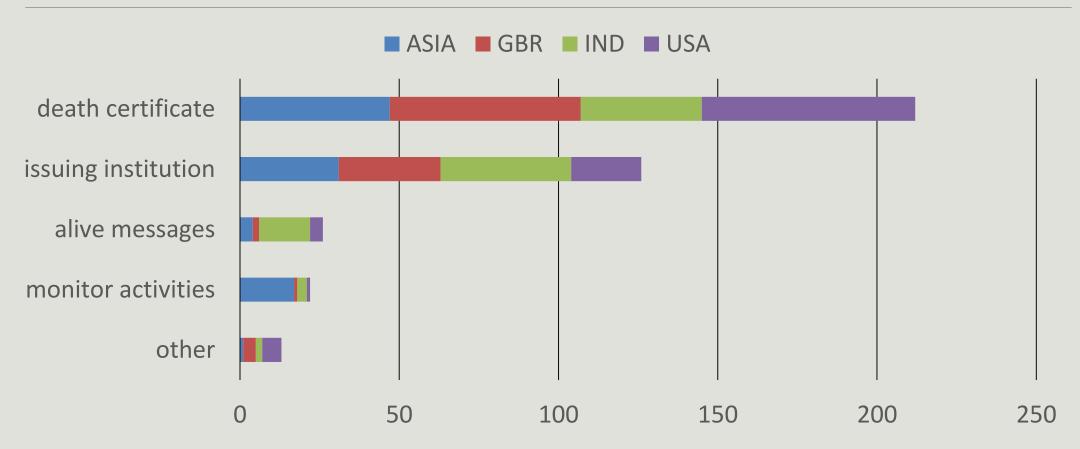
Unified Service: Provider



Unified Service: Features



Unified Service: Verifying Death of a Client



Differences between Countries / Religions

Fate of Digital Footprints

USA, ASIA: delete permanently

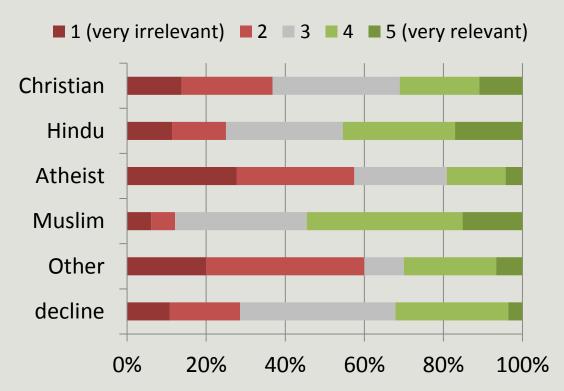
India: give next of kin

GBR: decide individually

Unified Service: Verify Death

slightly more acceptance for issuing institution by Hindus, Muslims, and Indians





Conclusion & Discussion

SUMMARY, PARTICIPANTS' VOICES, NEXT STEPS

Summary

Fate of Digital Footprints after Death

deletion, inheritance, preservation account type specific, deletion of contributions? surprising agreement between countries and religions

A Unified Service

primarily for deletion, acting when receiving death certificate, non-profit, considered appropriate

Participants' Voices

"I need to give it some thought, but not today—it's depressing me!"

"Who cares after you're dead?"

"I have never considered using a service like this—until today.

"No idea how such a thing could be secure, policed, organized or accurate."

I don't want my family to view my social media accounts."

"Mistakes do happen, but there should be no mistakes with this kind of service."

Next Steps ...

Future Work

Explain the patterns by interviewing end-users refine and repeat survey for more countries / cultures

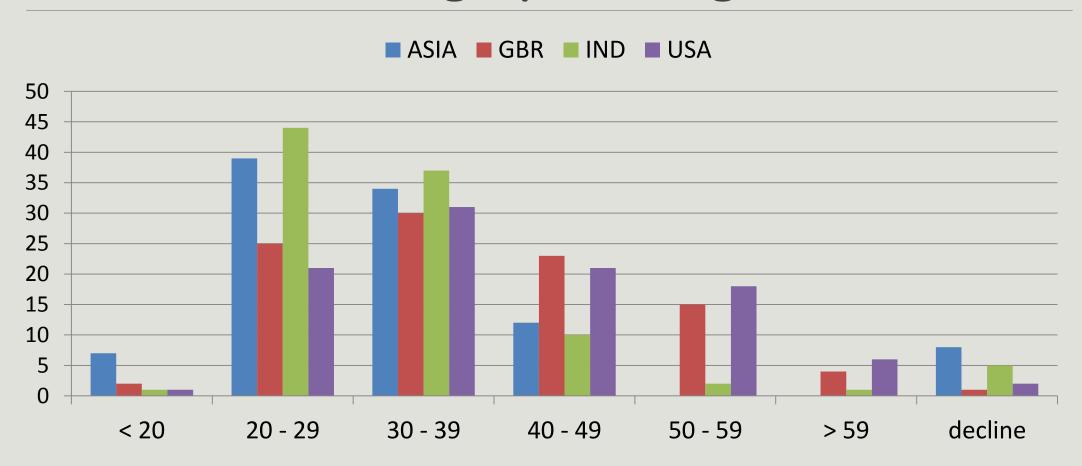
Design Challenges for Unified Service

privacy concerns, business model, security issues, legal basis, deployment method, usability considerations, ...

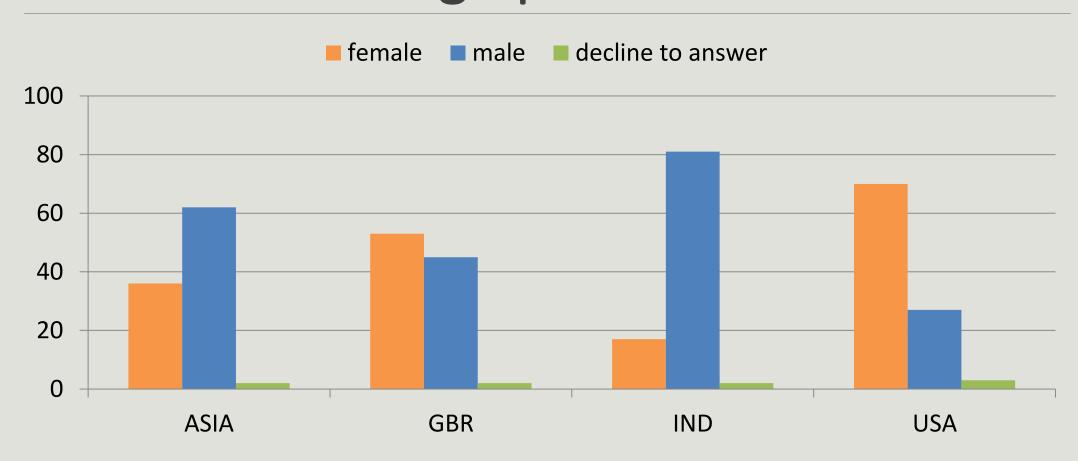
Thank You

What are your thoughts?

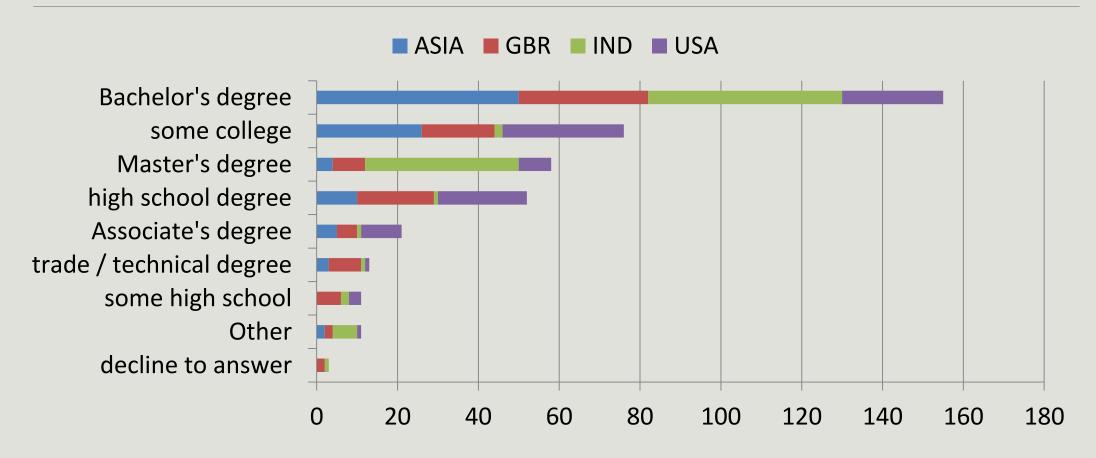
Additional Demographics: Age



Additional Demographics: Gender



Additional Demographics: Education



Additional Demographics: Occupation

