

# Micro-Level Natural Interaction with Information Systems: An International Screenshots Comparison

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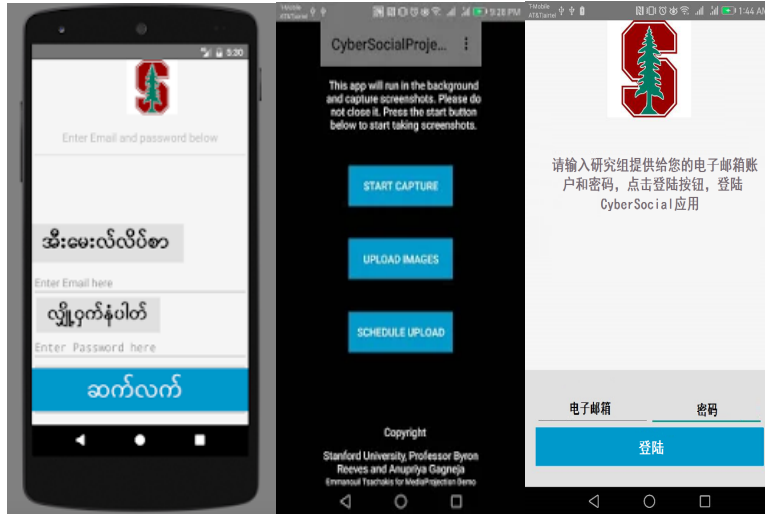
## Introduction

Is human-smartphone interaction similar across highly varied contexts?

<b>USA</b>	Longest time and high maturity with mobile / internet media
<b>MYANMAR</b>	Recent transition and sudden widespread adoption of mobile / internet media
<b>CHINA</b>	Growing mobile / internet media under authoritarian control

## Method: *longitudinal checks, is the screen on?*

Using a novel android app, participants' smartphone screens were tracked at five-second intervals.



*App UI in Burmese, English and Chinese*

We analyze the timestamps of screenshots to measure phone usage.

Sample adults from each country

Ages 22-30

One week of screenshot collection

# Data

	Both genders without outliers		
Country	US	MM	CN
Sample size	18	12	23
Average hours of phone usage	24	16	36
Average # times turned on	2415	1396	3583
Mean seconds b/w on and off	41	45	40
Mean seconds b/w off and on	151	534	141

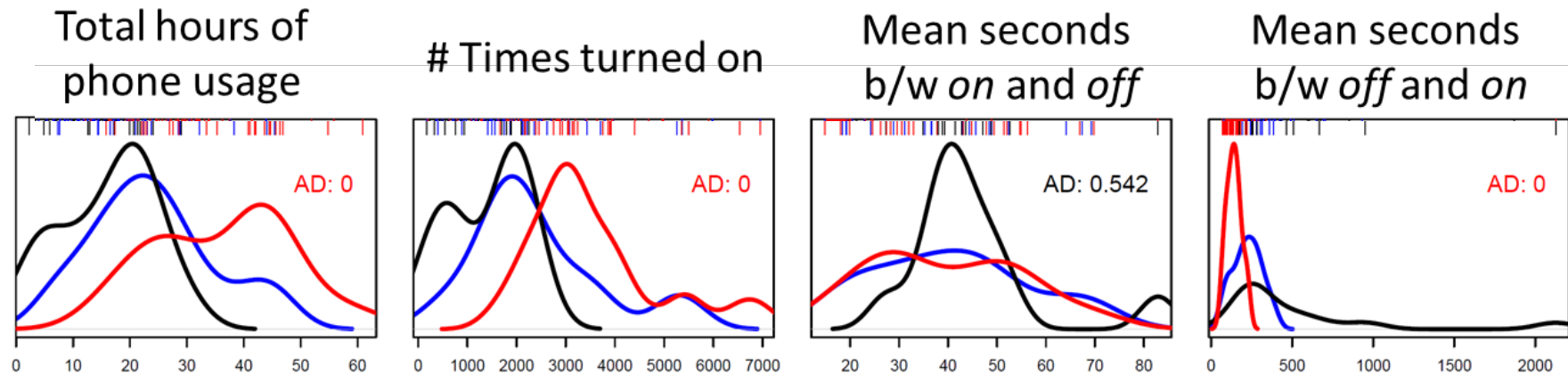
# Results

Different *amounts*, but same *pattern*

US

China

Myanmar



Distributions of individuals' phone usage metrics, by 4 sample styles, over 7 days in 2017.  
Red Anderson-Darling (AD) test p-values indicate significantly different distributions.

# Conclusion

## **Screen time**

China > US > Myanmar, heavier phone activity among participants in China.

## **Mean session length**

Similar distributions of average time between phone-on and off.

## **Basic implications**

Participants in China, US, and Myanmar use their phones for differing lengths of time overall, but keep their attention on the phone for similar time durations each time they turn the phone on.

## **Substantive implications**

Suggests similarity in human-smartphone interaction in three highly varied contexts.

# Thank you

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