

### Methodology

For 7 days, 15 volunteers allowed us to log notification-related activity on their mobile phones, and each day, they reflected on this activity via an online questionnaire.

### Notifications

6854 notifications, most (48.7%) being from messengers (WhatsApp, Google Talk, SMS) and email (32.4%)

63.5 notifications (median) per participant per day, which our participants considered to be "the usual".

Emails typically arrived during work hours, messages during lunch break, after work, and before bedtime.

### Notifications were attended

Within a median time of 3.5 min for messages on weekends to 27.7 min for email on weekends.

Fastest if they were from messengers (6.6 and 3.5 min) and social network applications (3.8 and 7.0 min / weekday and weekend day)

Fastest when in vibration mode. Silent mode did not lead to slower times than normal ringer mode.

### Effect on Emotional State

More emails: increased feelings of being overwhelmed, interrupted, stressed, and annoyed.

More social network notifications: increased feelings of being interrupted, stressed, and annoyed.

More messages: increased feelings of being overwhelmed and having to deal with a lot of notifications.

More notifications from messengers and social networks: increased feeling of being connected to others.

### Perceptions of Response Time

Perceived response time was slower than actual. For example, subjectively, messages were attended within an hour, not minutes

Three reasons for fast response  
(1) Expectations of others  
(2) Time-critical information  
(3) Messaging with loved ones

People delayed attending to emails and social network updates, when "I see it is not urgent and there are other priorities at the moment"

### Implications for Notification Services

Reducing the number of notifications - not advisable: users will check their phones more frequently to not miss "important" messages.

Delivering notifications at the right time: advisable for emails, but not for notifications from messengers and social networks.

Communicating availability: most promising approach for personal communication, as it would allow to manage expectations.