

# Using Hyper-Targeted Advertising for Public Health Messaging

Ingmar Weber  
@ingmarweber  
#AIforGood

May 16, 2018

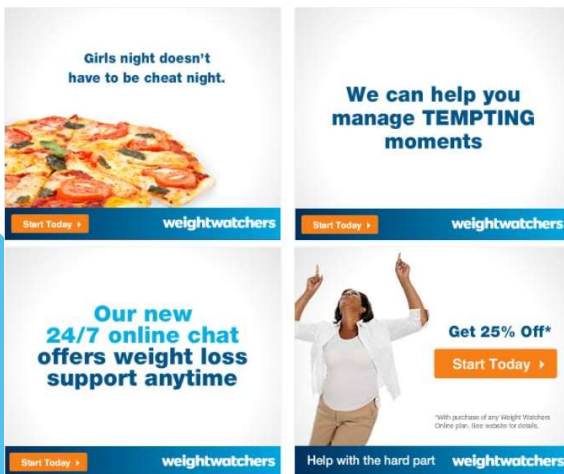


# Public Health Messaging Today



<https://facebook.com/SmokefreeSW>

- limited targeting using age/gender
- “one-size-fits-all” visual and text
- social media for “fans”
- duration less than 1 year
- goal: one viral message



<https://www.doubledclickbygoogle.com/articles/weight-watchers-boosts-acquisitions-56-using-dynamic-creative/>

- different visuals
- different texts
- specific to customer segment
- dynamic creatives
- goal: personalization

# Existing Ad Targeting Capabilities

Demographics: age, gender, marital status, recent parents, nationality, education, income (US/UK), ethnicity (US), ...

Interests: fast food, weight loss, lung cancer, running, ...

Geo-fencing: recent hospital/bar/park visitors, ...

“Personality”: Using marker interests as proxy\* ...

Custom audiences: known email, phone number, names, ...

\*“Psychological targeting as an effective approach to digital mass persuasion”;  
S. C. Matz, M. Kosinski, G. Nave and D. J. Stillwell; PNAS Nov. 2017

# The Pitch

*“Show the right public health message to the right person at the right time”*

Advertising 101

1. Have domain experts generate visuals and texts as well as user segments
2. Where appropriate, measure offline conversion (“in-store visits”)
3. Use AI to learn best visuals-text-segment combinations

## Examples

- Activity in nearby park (parents, football lovers, couples, ...)
- Diabetes screening tests (interest in plus-size clothing, in fast food, ...)
- Benefits of breast-feeding (recent moms, different education levels, ...)
- Child vaccination (age of child, political orientation, education level, ...)

**Side effect: Advance science of behavior change**

# Challenges and Opportunities

- Privacy: re Cambridge Analytica
- Ad fatigue: personalization can help
- Digital divide: users not on the respective platform left behind
- + Reach: more than 2B Facebook users
- + Cost effective: easy to start small, scale up
- + Science: large-scale health behavior change



Starting soon

# Proof-of-Concept Studies

Advertising healthy recipes in the US on Facebook

- emphasizing taste vs. health benefits
- interest-based targeting (healthy vs. unhealthy)
- geographic targeting (high/low obesity rates)
- joint work with Christoph Trattner and Pamina Strobl



Advertising smoking cessation to US Hispanics on Facebook

- social vs. individual consequences
- white vs. non-white model in ad image
- demographic targeting (parents or not, married or not)
- joint work with Kokil Jaidka and Lyle Ungar



# Thanks!

Ask me about real-time analysis of social media text and images during disasters for situational awareness



<http://aidr.qcri.org/>