Losing body-weight by using Facebook

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Introduction

- The number of people communicating via online networks rises
- 70% of the German teenagers uses Facebook daily or weekly
- Some studies find: „Facebook generates envy and discontent“
- Are Facebook communication and health behavior related?
## Resources und stresses

- Social support via social capital  
  (Rose 2000, Jungbauer-Gans 2002)
- Stresses and strains as a result of burdensome contacts  
  (Meadows et al. 2008)
- Impact depending on the characteristics of ties  
  - Weak/strong ties  
    (Burt 1995, Granovetter 1973)
  - Health related social capital  
    (Cattel 2001, Ferlander 2007)
- Relationship between online social networks and body weight (Durst et al. 2013)

### Hypotheses

- Intensity-Hypothesis:  
  The more intense the facebook usage – the stronger the wish to lose body weight

- Strength of ties-Hypothesis:  
  The stronger social ties – the stronger the wish to lose body weight
• Data collection
  • 1000 participants were retrieved from the GfK Online Panel
  • Fielded from 5th until 22nd May 2012
  • Quota sampling approach via gender and age
  • Additional sample criteria:
    – Facebook account
    – Be willing to install the Facebook application in order to give us access to their network data

• Operationalization
  • Intensity of using online social networks
    – Daily usage of Facebook in minutes
    – Number of ego initiated Wallpost etc.
  • Characteristic of network contacts
    – Share of contacts that exist in the real world
    – weak/strong ties

• Methods
  • Logistic Regressions: wish to lose body weight (yes/no)
    – All users
    – Only if BMI > 30
    – Only for normal BMI 20-26
## Introduction

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<table>
<thead>
<tr>
<th>wish to lose body weight (1=yes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>all</td>
</tr>
<tr>
<td>BMI 30+</td>
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</table>

| Age | 0.017** | 0.034*** | 0.022 |
| Male | 0.011 | 0.018*** | 0.0207 |
| educ (in years) | (-5.705) | (-1.069) | (-7.021) |
| Facebook usage in min. | 0.002* | 0.005*** | 0.002 |
| homogenous network (educ) | 0.045 | 0.048 | 0.094 |
| BMI 20-26 | (-1.144*** | (-7.379) | (-1.188) |
| Number of contacts | 0.000 | 0.001 | 0.000 |
| weak ties (ref: virtual) | (-1.197) | (-0.242) | (-1.985) |
| strong ties (ref: medium) | -0.135 | -0.059 | -0.108 |
| Constant | 0.812* | -3.163*** | 0.565 |

*p<0.05, **p<0.01, ***p<0.001

+ additional information via Facebook account

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| Use of Ego-initiated Wall-P. | 0.001 | 0.003** | 0.006 |
| Number of listed friends | 0.261 | -0.109 | 0.254 |
| Constant | 0.382 | -3.152*** | 0.203 |

*p<0.10, **p<0.01, ***p<0.001
Experiment in the planning stage

- The more intense the Facebook usage, the stronger is wish to lose body weight
- The higher the share of friends that exist in the real word, the stronger is wish to lose body weight
- Online social networks affect health behavior → approaches to behavioural prevention may be useful
- Outlook: a randomized controlled experiment is in the planning stage; does a smartphone app help losing body weight?

The prototype of an app to help losing body weight was programmed by master students (business informatics, FAU Erlangen-Nuremberg)
- The effect of the app should be tested in a randomized controlled trial
- IFB AdiposityDiseases (BMBF) provides the access to 3000 obese people
  - must lose weight because of medical reasons
  - they are under regular medical supervision
- People showing BMI 22-27 who wish to lose body weight are recruited via GFK access panel
Designing a mobile App

- Self-evaluation is done by comparison to others with similar opinions and abilities
- The importance of an opinion or ability has an impact on the drive for evaluation

- Upward and Downward Comparison
  - Upward comparison inspires to do better but might lower self-esteem
  - Downward comparison reduces the motivation but boosts self-esteem

General motives for exercising

- Improve health condition
- Improve physical condition
- Lose weight
- Look better
- Build up muscles
- Have fun
- Reduce stress
- Social contacts
- Feel better
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Friend's Profile
Picture
Upward and Downward Comparison /

Dynamic Distance Line
Self-Enhancement / Self-Improvement

Stats
Self-Assessment

Gender Selection
Similar vs. dissimilar

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Thank you for your attention!