PIRATES IN BINARY WATERS
ON COVERT CRIMES AND EDUCATED OFFENDERS
ALEXANDER KNUTSSON
INTRODUCTION
PURPOSE AND AIM
MATERIAL
METHOD
RESULTS
BINARY LOGISTIC REGRESSION
HIGHLIGHTS
FUTURE
RECOMMENDATIONS
Capable Guardians – are defined as objects or persons’ who would prevent the crime.

Motivated Offender is anyone who for any reason might commit a crime.

Suitable Targets People or objects who would put up a low level of resistance for the motivated offender.
RAT IN BINARY WATERS
STILL RELEVANT?

- 1979: RAT (GENERAL THEORY OF CRIME DEVELOPED BEFORE THE DIGITAL AGE)
- 1991: THE INTERNET (THE INTERNET BECOMES PUBLICLY AVAILABLE)
- 2016: MODERN CYBERCRIME (SOFTWARE PIRACY, PHISHING, FRAUD AND ONLINE HARRASMENT)
SWEDISH INTERNET FOUNDATION
THE SWEDES AND THE INTERNET
RANDOMIZED SELECTION
3000 EACH YEAR
3085 IN 2016
BINARY LOGISTIC REGRESSION

1. **DICHOTOMIZE**
   The dependent variable consists of two response options.

2. **HIGHLY SKewed**
   Something that regular linear regression struggles with to deal with.

3. **NO MULTIPLE LAYERS**
   Vigorous randomization of participants.

**BUT WHY?**
INTRODUCING THE VARIABLES

Software Piracy
The dependent variable of my thesis. Based on self-reported tendencies for piracy.

Motivation
Interest and activity outlook. Based on one’s self-reported activity of films and music at their computer.

Knowledge
Related to ability. Based on one’s self-reported knowledge of computers and the virtual world.

Internet Activity
The focal independent variable of my thesis. Core idea of RAT.

Legal Alternatives
Includes variables regarding streaming services such as Netflix and Spotify.

Usual Suspects
Includes variables that are common in similar studies; Education, Sex, Age and Income.
<table>
<thead>
<tr>
<th>Variable</th>
<th>B (S.E.)</th>
<th>Exp(B)</th>
<th>95% C.I. for Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Activity</td>
<td>0.391*** (0.106)</td>
<td>1.478</td>
<td>1.201 1.820</td>
</tr>
<tr>
<td>Motivation Film</td>
<td>0.282*** (0.046)</td>
<td>1.326</td>
<td>1.210 1.452</td>
</tr>
<tr>
<td>Motivation Music</td>
<td>0.025 (0.041)</td>
<td>1.025</td>
<td>0.946 1.110</td>
</tr>
<tr>
<td>Legal Alternatives Music (1)</td>
<td>-0.048 (0.134)</td>
<td>0.953</td>
<td>0.733 1.239</td>
</tr>
<tr>
<td>Legal Alternatives Film (1)</td>
<td>0.009 (0.127)</td>
<td>1.009</td>
<td>0.787 1.294</td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.691*** (0.127)</td>
<td>1.995</td>
<td>1.637 2.431</td>
</tr>
<tr>
<td>Education</td>
<td>0.167** (0.053)</td>
<td>1.182</td>
<td>1.064 1.312</td>
</tr>
<tr>
<td>Sex (1)</td>
<td>-1.454*** (0.133)</td>
<td>0.234</td>
<td>0.180 0.303</td>
</tr>
<tr>
<td>Income</td>
<td>-0.116*** (0.032)</td>
<td>0.891</td>
<td>0.838 0.948</td>
</tr>
<tr>
<td>Age</td>
<td>-0.037*** (0.005)</td>
<td>0.963</td>
<td>0.955 0.972</td>
</tr>
<tr>
<td>Constant</td>
<td>3.167*** (0.578)</td>
<td>0.042</td>
<td>N=2547</td>
</tr>
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</table>
The three variables Internet activity, motivation film and knowledge is particularly impactful when determining ones’ probability for piracy.

- **Internet Activity**: 29%, discreet difference is ~ 27%
- **Motivation Film**: 64%, discreet difference is ~ 57%
- **Knowledge**: 41%, discreet difference is ~ 39%

Pearson’s $R = 0.531^{**}$ // ROC-Curve = 0.847^{***}
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</tr>
</thead>
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<tr>
<td>Internet Activity</td>
<td><strong>0.364</strong>* (0.113)</td>
<td>1.438</td>
<td>1.152</td>
</tr>
<tr>
<td>Motivation Film</td>
<td><strong>0.200</strong> (0.041)</td>
<td>1.222</td>
<td>0.944</td>
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<tr>
<td>Motivation Music</td>
<td>0.024 (0.041)</td>
<td>1.024</td>
<td>0.945</td>
</tr>
<tr>
<td>Legal Alternatives Music (1)</td>
<td>-0.047 (0.134)</td>
<td>0.954</td>
<td>0.733</td>
</tr>
<tr>
<td>Legal Alternatives Film (1)</td>
<td>0.011 (0.127)</td>
<td>1.011</td>
<td>0.788</td>
</tr>
<tr>
<td>Knowledge</td>
<td><strong>0.619</strong>* (0.148)</td>
<td>1.857</td>
<td>1.390</td>
</tr>
<tr>
<td>Education</td>
<td>0.169** (0.054)</td>
<td>1.184</td>
<td>1.066</td>
</tr>
<tr>
<td>Sex (1)</td>
<td>-1.456*** (0.133)</td>
<td>0.233</td>
<td>0.180</td>
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<td>-0.115*** (0.032)</td>
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<tr>
<td>Age</td>
<td>-0.037*** (0.005)</td>
<td>0.963</td>
<td>0.955</td>
</tr>
<tr>
<td>Interaction</td>
<td>0.007 (0.011)</td>
<td>1.007</td>
<td>0.986</td>
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<tr>
<td>Constant</td>
<td><strong>2.874</strong>* (0.721)</td>
<td>0.056</td>
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N=2547
HIGHLIGHTS
THE TWO REGRESSIONS
RAT IN BINARY WATERS
THE IMPACT OF KNOWLEDGE
STUDY LIMITATIONS
MATERIAL
METHOD
FUTURE RECOMMENDATIONS

RAT

KNOWLEDGE AND ABILITY

CYBERCRIME IN THE FUTURE

INCREASED DIGITAL DEPENDENCY
THANK YOU!

FULL ARTICLE AVAILABLE HERE

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