

Antrittsvortrag Diplomarbeit

# Enhancing Web Browser Privacy and Security Awareness

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Verantw. Hochschullehrer: Prof. Dr. Andreas Butz



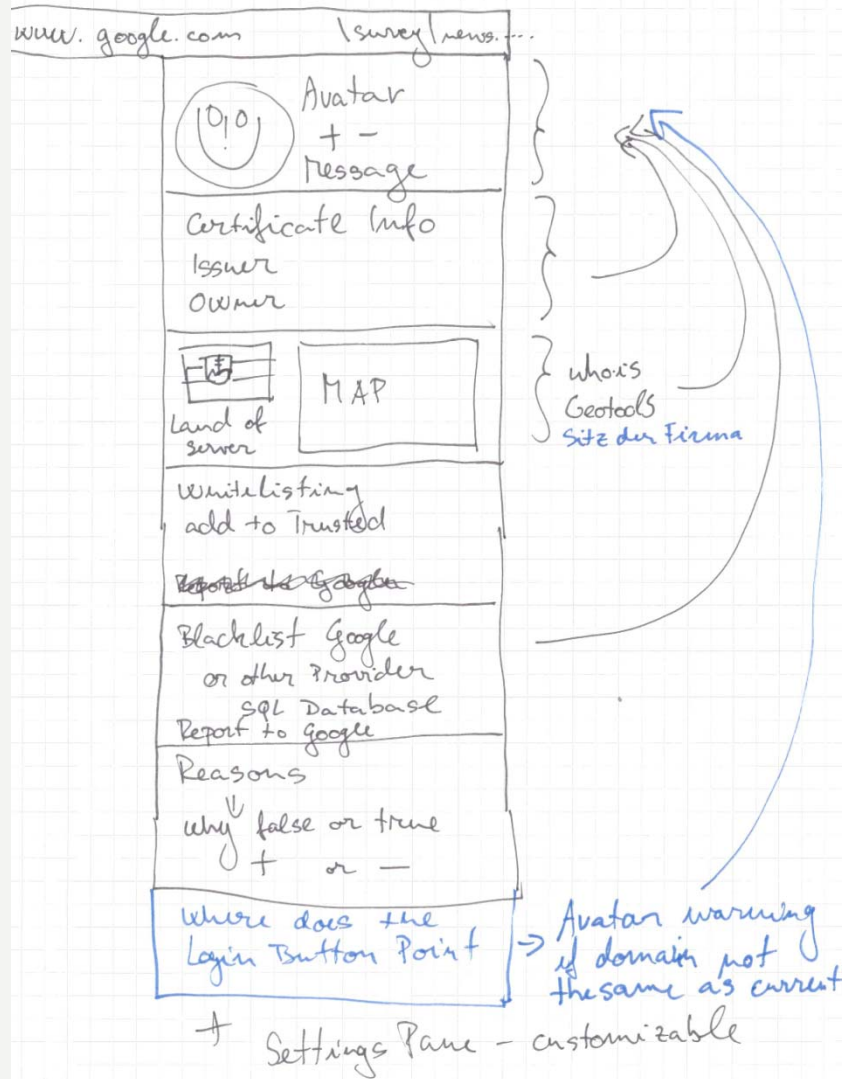


# Aufgabenstellung

- Herausfinden welche Kenntnisse durchschnittlicher Benutzer über Onlinerisiken besitzt, über die ein Webbrowser informieren sollte
- Implementieren eines Browserplugins anhand der Erkenntnisse aus einer Benutzerstudie
- Evaluierung des Plugins



# Idee





# Onlineumfrage

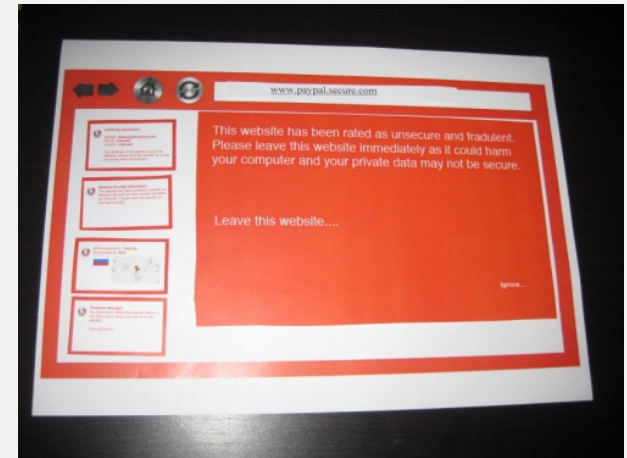
- **Dauer:** 2 Wochen
- **Antworten:** 100, davon 49 vollständig
- **Teilnehmer:** männlich 51,02% - weiblich 48,98%
- **Altersdurchschnitt:** 31 Jahre
- **IT-Kenntnisse:** exzellent oder gut - 22,45%  
mittelmäßig oder ausreichend - 59,18%  
keine - 18,37%



# Onlineumfrage - Ergebnisse

- Sicherheitswarnungen sind bekannt, die Konzepte dahinter nicht
- Warnungen werden gelesen, befolgt und als hilfreich empfunden
- Anti-Phishing Tools werden nicht verwendet
- Phishing und Blacklisting sind meistens unbekannte Begriffe
- Farben und Icons wirken besser als Texterklärung
- Passwortmanager als sicherheitssteigernd aber zeitaufwendig empfunden

# Paper Prototyping





# Paper Prototyping - Ergebnisse

- Zertifikatsinformationen, Blacklistabfrage, Zusammenfassende Informationen als wichtig eingestuft
- Passwort Manager, Whoisabfrage und Standort des Servers interessant aber weniger vertrauenswürdig
- Icons und Farbe des Chromes schaffen übersicht
- Benutzer kann anzuzeigende Module wählen und positionieren
- Sidebar soll sich minimieren lassen

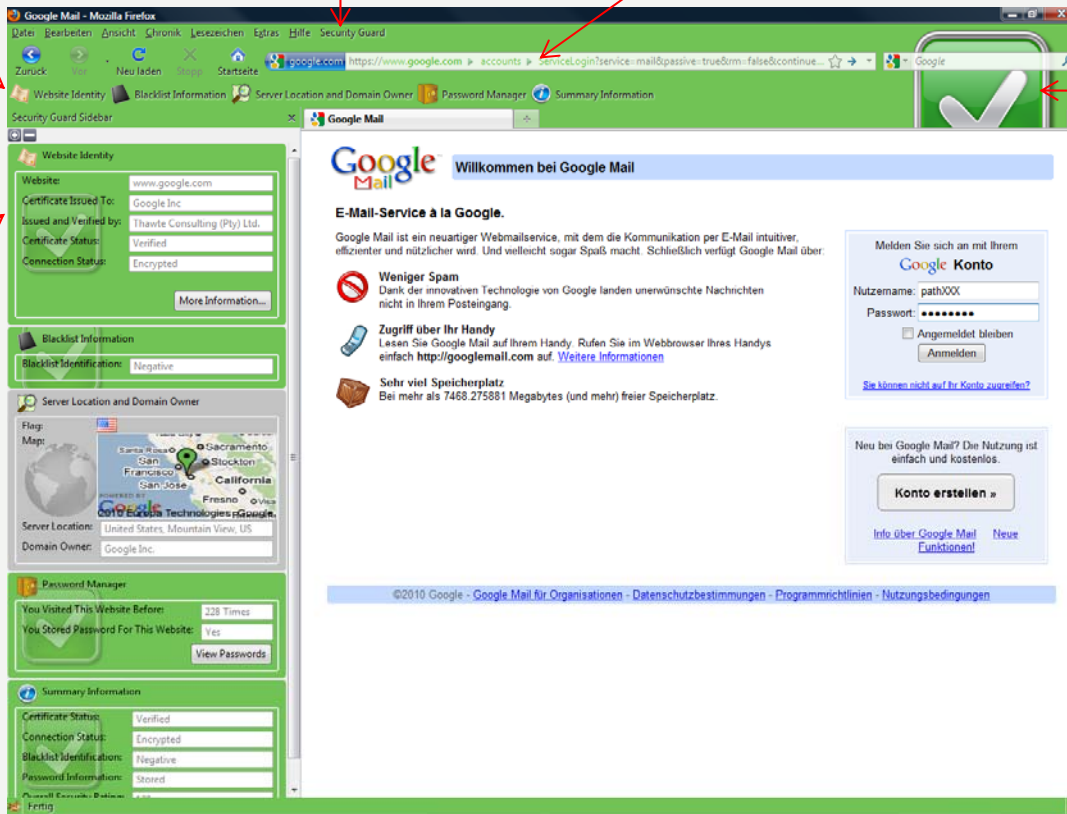
# Security Guard Firefox Extension

Security Guard Toolbar

Security Guard Menü

Security Guard Locationbar

Security Guard Persona



Security Guard Sidebar





## Security Guard Sidebar

**Website Identity**

Website:

Certificate Issued To:

Issued and Verified by:

Certificate Status:

Connection Status:

This website does not provide any security information.

[More Information...](#)

**Website Identity**

Website:

Certificate Issued To:

Issued and Verified by:

Certificate Status:

Connection Status:

[More Information...](#)

**Website Identity**

Website:

Certificate Issued To:

Issued and Verified by:

Certificate Status:

Connection Status:

[More Information...](#)

**Blacklist Information**

Blacklist Identification:

**Blacklist Information**

Blacklist Identification:



# Security Guard Sidebar

Server Location and Domain Owner

Flag:

Map:

Server Location:

Domain Owner:

Password Manager

You Visited This Website Before:

You Stored Password For This Website:

Password Manager

You Visited This Website Before:

You Stored Password For This Website:

Password Manager

You Visited This Website Before:

You Stored Password For This Website:

## Security Guard Sidebar

**Summary Information**

Certificate Status:	No Certificate
Connection Status:	Not Encrypted
Blacklist Identification:	Negative
Password Information:	Not Stored
Overall Security Rating:	No Rating

**Summary Information**

Certificate Status:	Verified
Connection Status:	Encrypted
Blacklist Identification:	Negative
Password Information:	Stored
Overall Security Rating:	120

**Summary Information**

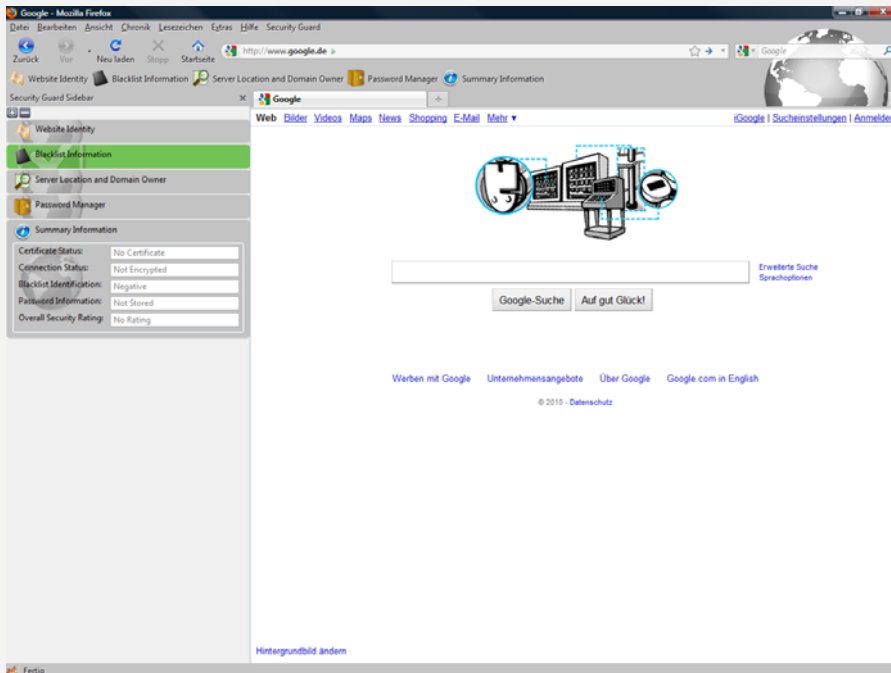
Certificate Status:	No Certificate
Connection Status:	Not Encrypted
Blacklist Identification:	Positive
Password Information:	Not Stored
Overall Security Rating:	0

**Summary Information**

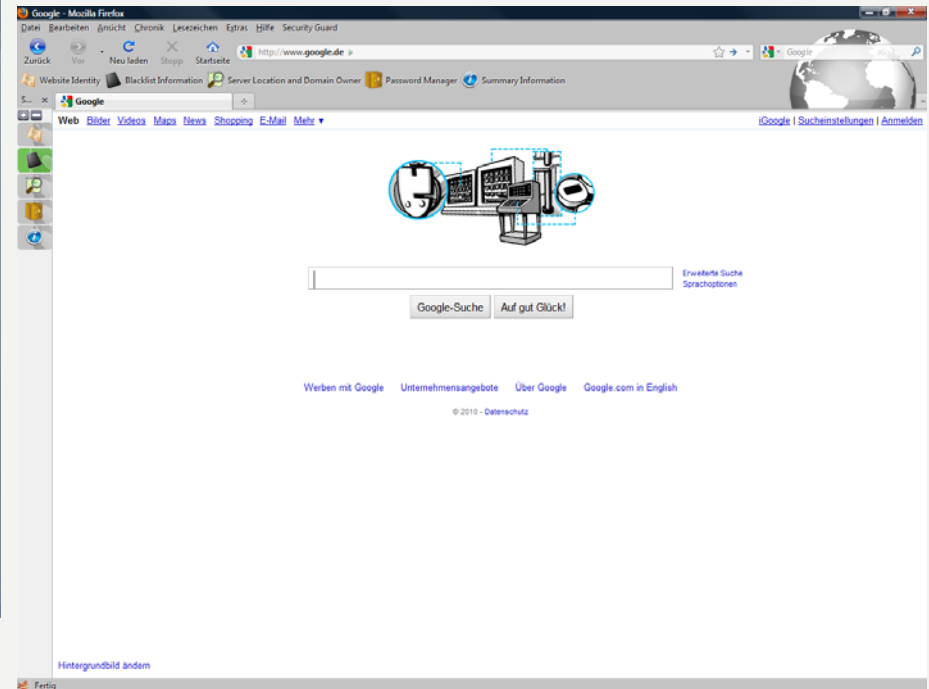
Certificate Status:	Issuer not trusted
Connection Status:	Not Encrypted
Blacklist Identification:	Negative
Password Information:	Not Stored
Overall Security Rating:	50



## Security Guard Sidebar



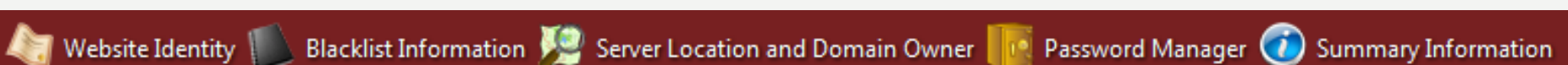
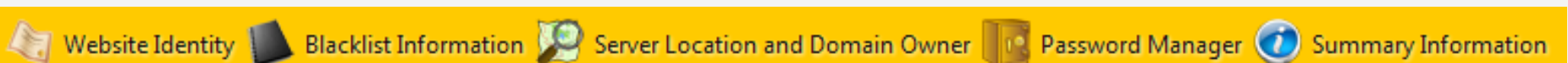
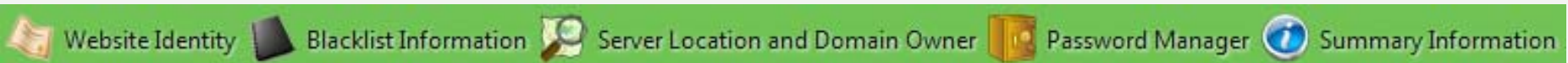
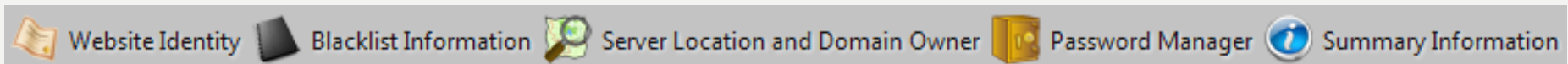
**Collapsed Modules**



**Collapsed Sidebar**

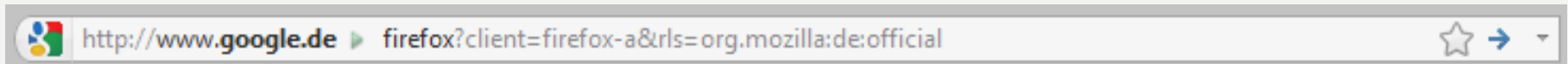
# Security Guard Toolbar

- Anhand des Security Ratings



# Security Guard Locationbar

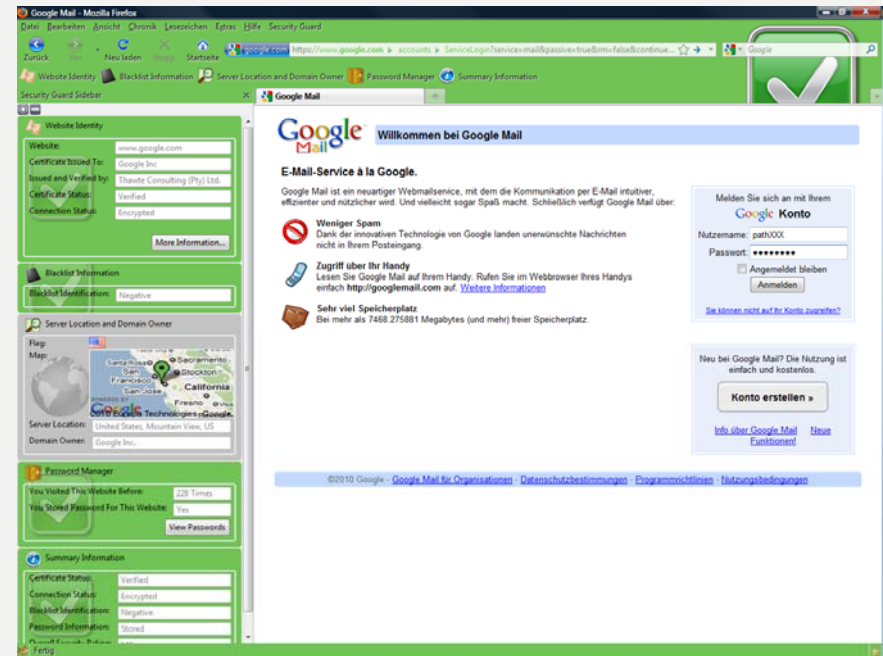
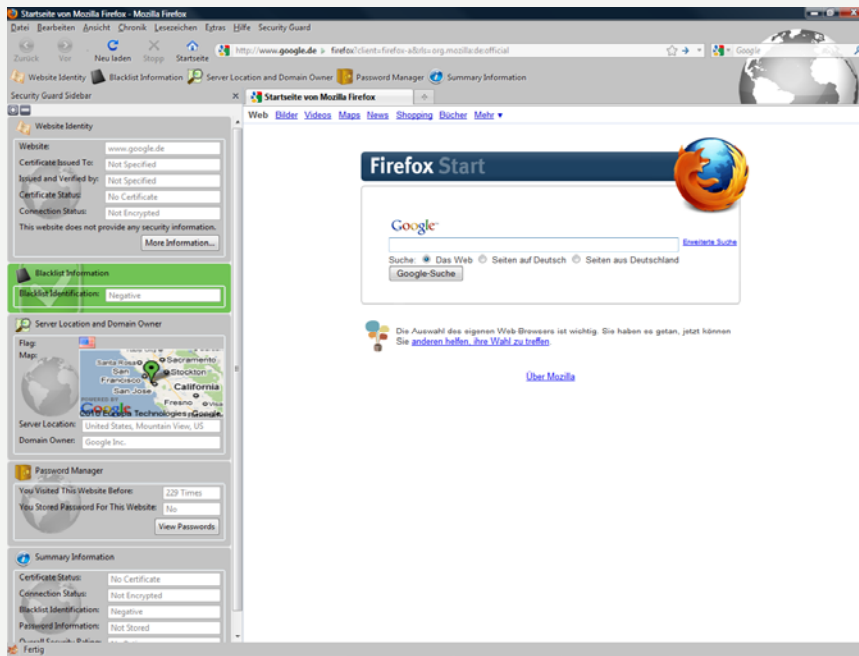
- Anhand des Security Ratings





# Security Guard Personas

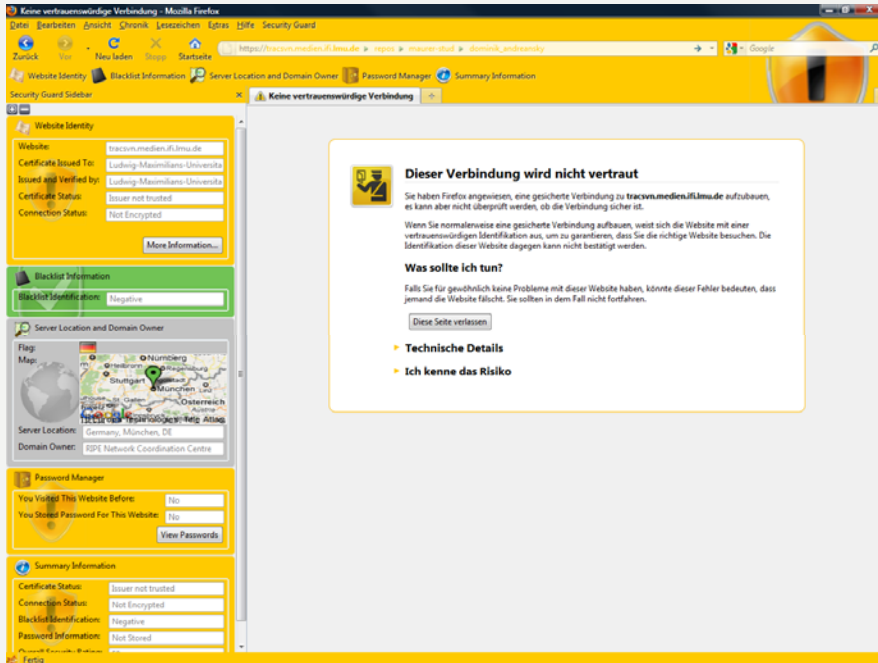
- Anhand des Security Ratings



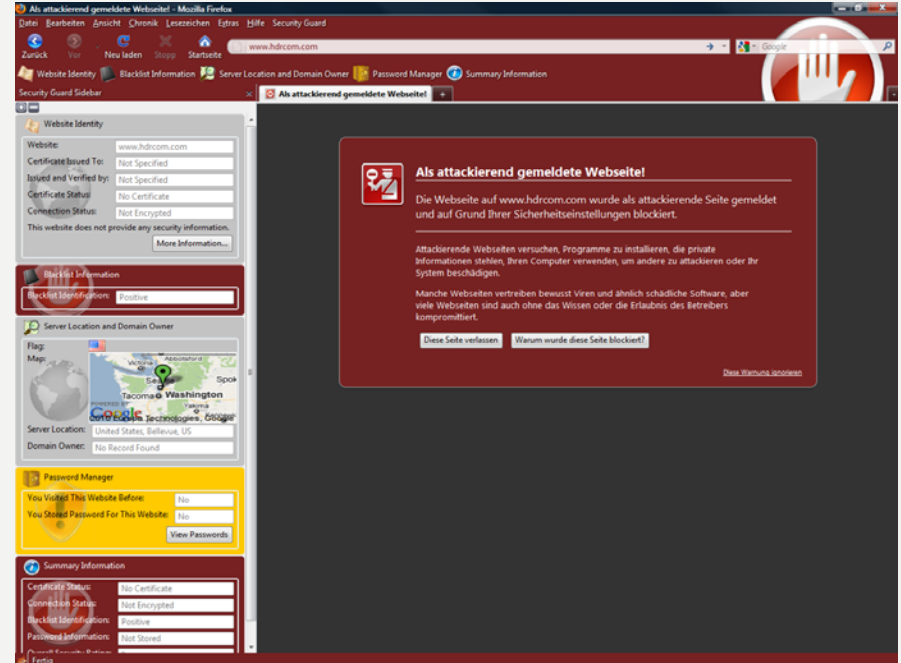
Neutrale Persona – unverschlüsselte Verbindung

Sichere Seite Persona

## Security Guard Personas



Seite mit Problem Persona



Unsichere Seite Persona





# Nächste Schritte

- Benutzerstudie
- Auswertung der Studie

**Vielen Dank für Ihre Aufmerksamkeit!**

**FRAGEN?**



**DEMO!**