Online-Appendix

„The Influence of Leadership Style on the Acceptance of Generative AI in the Workplace - The Role of Organizational Commitment, Job Insecurity and Interaction Frequency“

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7 Appendix

Appendix A: Linearity org. commitment & tech. acceptance

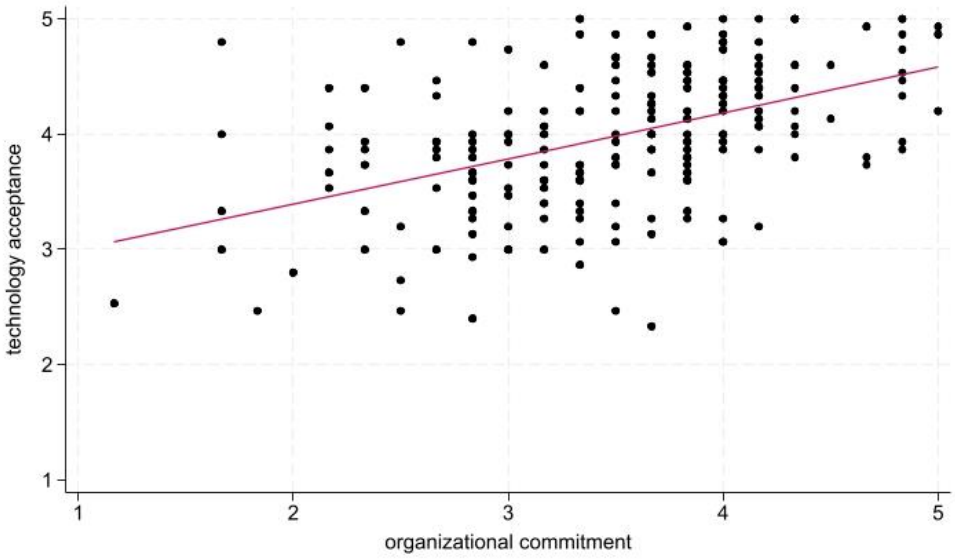


Figure 9: scatter plot organizational commitment and technology acceptance

Appendix B: Linearity fear of job loss & tech. acceptance

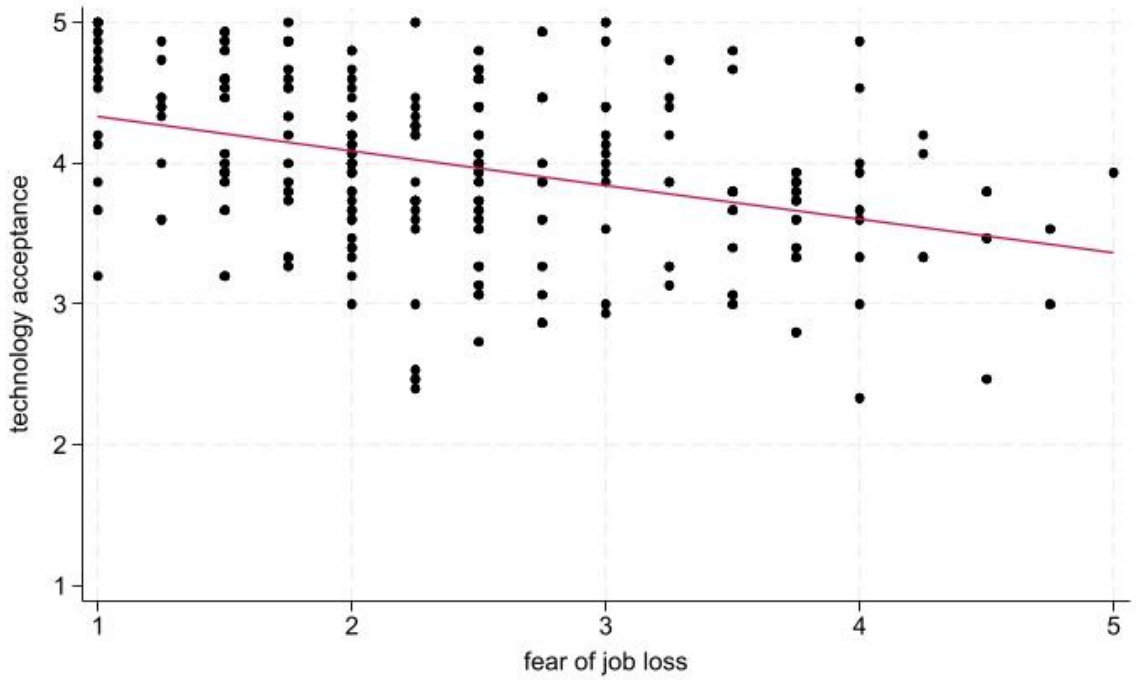


Figure 10: scatter plot fear of job loss and technology acceptance

Appendix C: Normal distribution technology acceptance

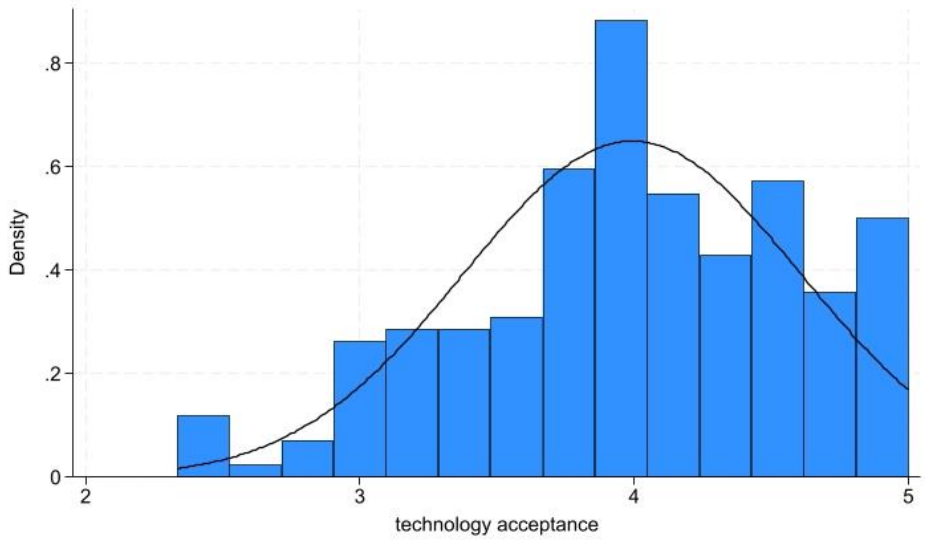


Figure 11: Normal Distribution technology acceptance

Appendix D: Q-Q Plot fear of job loss

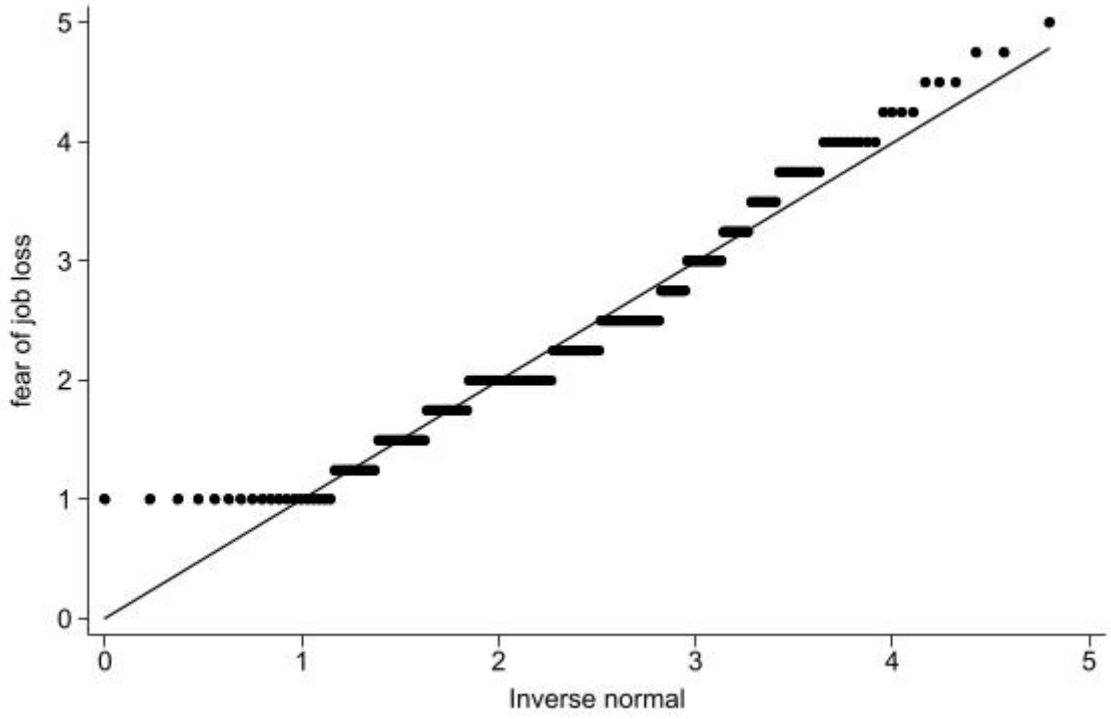


Figure 12: Q-Q Plot fear of job loss

Appendix E: Q-Q Plot technology acceptance

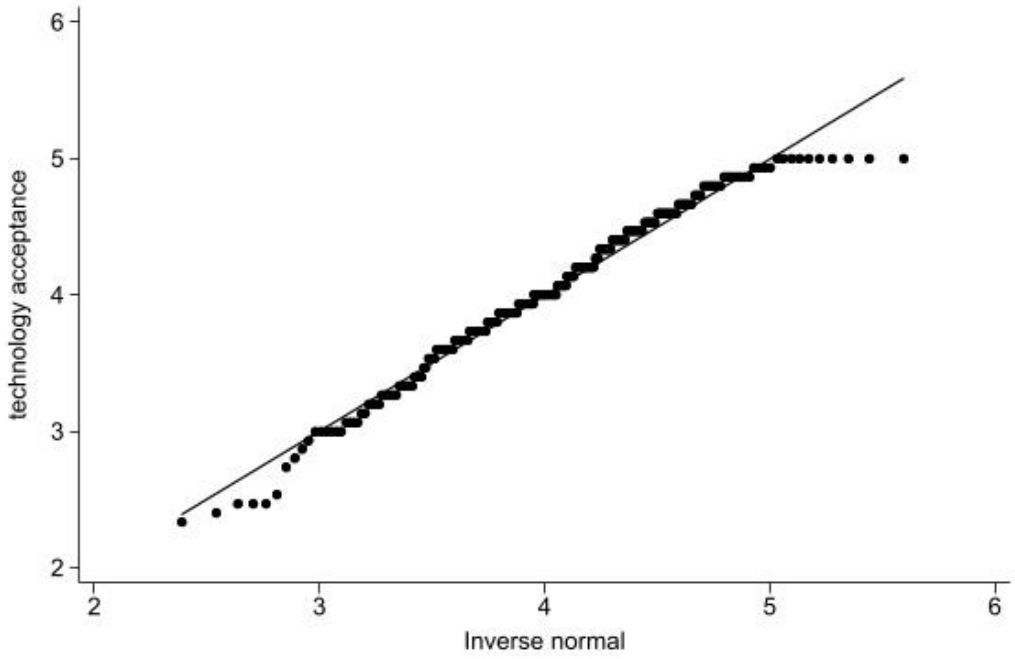


Figure 13: Q-Q Plot technology acceptance

Appendix F: Normal Distribution organizational commitment

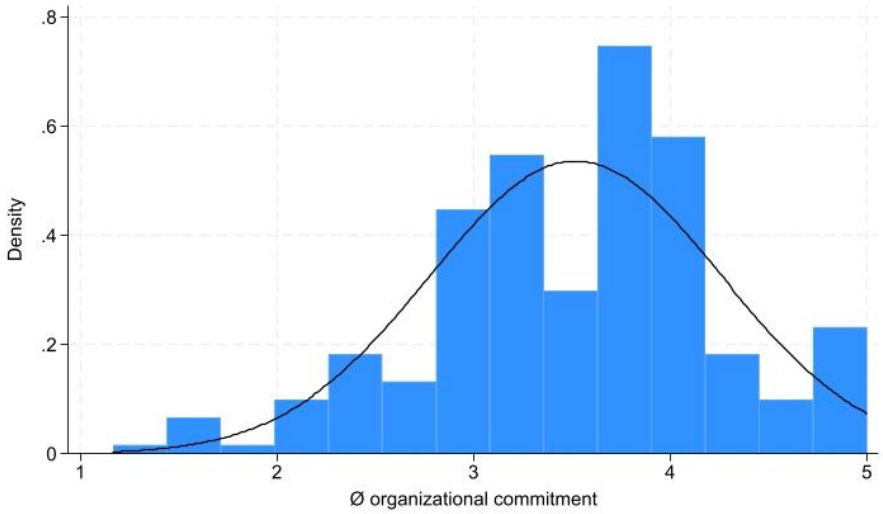


Figure 14: normal distribution organizational commitment

Appendix G: Q-Q plot organizational commitment

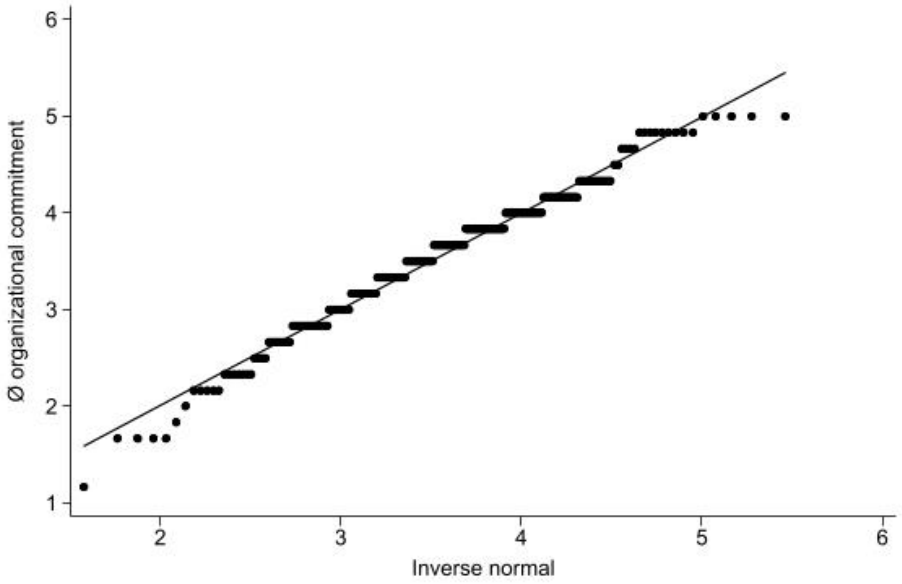


Figure 15: Q-Q Plot organization commitment

Appendix H: Codebook

Variable	**Composition**
age	v_69
gender	V_76
open_innov	v_107
chatGPT_priv	v_108
realism	v_100
avg_tam	$\frac{(v\_19 + v\_20 + v\_21 + v\_22 + v\_23 + v\_74 + v\_75 + v\_76 + v\_77 + v\_78 + v\_79 + v\_80 + v\_81 + v\_82 + v\_83)}{15}$
avg_PEOU	$\frac{(v\_19 + v\_20 + v\_21 + v\_22 + v\_23)}{5}$
avg_pu	$\frac{(v\_74 + v\_75 + v\_76 + v\_77 + v\_78 + v\_79 + v\_80 + v\_81 + v\_82 + v\_83)}{10}$
avg_commitment	$\frac{(v\_49 + v\_51\_rev + v\_52 + v\_54 + v\_56 + v\_61)}{6}$
job_loss	$\frac{(v\_64 + v\_65\_rev + v\_66 + v\_67)}{4}$

Table 4: Codebook

Appendix I: Do File

```
// umbennen der variablen //
rename v_69 age
rename v_72 gender
rename v_73 education
rename v_107 open_innov
rename v_108 chatGPT_priv
rename v_100 realism

rename c_0001 lead_style
replace lead_style = 0 if lead_style == 1
replace lead_style = 1 if lead_style == 2

rename c_0002 freq
replace freq = 0 if freq == 3
replace freq = 1 if freq == 4


// umkodieren der reverse kodierten Variablen
gen v_51_rev = 6 - v_51
gen v_65_rev = 6 - v_65


// zusammenfassen der variablen
gen avg_tam = ( v_19 + v_20 + v_21 + v_22 + v_23 + v_74 + v_75 + v_76 + v_77 + v_78 + v_79 + v_80 + v_81 +
v_82 + v_83) / 15

gen avg_PEOU = (v_19 + v_20 + v_21 + v_22 + v_23) / 5

gen avg_PU = (v_74 + v_75 + v_76 + v_77 + v_78 + v_79 + v_80 + v_81 + v_82 + v_83) / 10

gen avg_commitment = (v_49 + v_51_rev + v_52 + v_54 + v_56 + v_61) / 6

gen job_loss = (v_64 + v_65_rev + v_66 + v_67) / 4



// entfernen der Teilnehmenden, die angaben ChatGPT nicht zu kennen
drop if lead_style == -66

// entfernen der Teilnehmenden, die den Aufmerksamkeitscheck nicht bestanden haben
drop if v_97 != 5
drop if c_0002 == 3 & v_98 == 1

// Analyse der Teilnehmenden, die den Manipulationscheck bestnden haben
sum avg_tam if lead_style == 1 & v_99 == 5
sum avg_tam if lead_style == 1 & v_99 == 1

//Entfernen wenn Geschlecht == "other"
drop if gender == 3

// speeder (top 1 centile) entfernen
centile duration, centile(1)
drop if duration < 112



// Gütekriterien: Chronbach's alpha
*chronbach's alpha für avg_tam
alpha v_19 v_20 v_21 v_22 v_23 v_74 v_75 v_76 v_77 v_78 v_79 v_80 v_81 v_82 v_83

*chronbach's alpha für avg_PEOU
```

```
alpha v_19 v_20 v_21 v_22 v_23

*chronbach's alpha für avg_PU
alpha v_74 v_75 v_76 v_77 v_78 v_79 v_80 v_81 v_82 v_83

*chronbach's alpha für avg_commitment
alpha v_49 v_51_rev v_52 v_54 v_56 v_61

*chronbach's alpha für job_loss
alpha v_64 v_65_rev v_66 v_67


//composite reliability für avg_tam
sem (avg_tam -> v_19 v_20 v_21 v_22 v_23 v_74 v_75 v_76 v_77 v_78 v_79 v_80 v_81 v_82 v_83)
* Sum of factor loadings
local sum_loadings = 0.6196858 + 0.9531967 + 0.970865 + 0.9881369 + 0.8265806 + 0.9220163 + 1.183077 +
0.9531967 + 1.109657 + 1.104311 + 1.053303 + 0.9667674 + 1.0783 + 1.086804 + 1.184105

* Sum of squared loadings
local sum_squared_loadings = `sum_loadings' * `sum_loadings'

* Sum of error variances
local sum_error_variances = 0.353807 + 0.326563 + 0.296185 + 0.269681 + 0.279865 + 0.248182 + 0.335368 +
0.251794 + 0.250555 + 0.294967 + 0.253199 + 0.692253 + 0.517227 + 0.465957 + 0.659057

* Calculate composite reliability
display "Composite Reliability = " (`sum_squared_loadings' / (`sum_squared_loadings' + `sum_error_variances'))



//composite reliability für avg_PEOU
sem (avg_PEOU -> v_19 v_20 v_21 v_22 v_23)

* Sum of factor loadings
local sum_loadings = 0.8444128 + 1.10205 + 1.057662 + 1.025418 + 0.9704571

* Sum of squared loadings
local sum_squared_loadings = `sum_loadings' * `sum_loadings'

* Sum of error variances
local sum_error_variances = 0.1878456 + 0.1391774 + 0.1369993 + 0.1895351 + 0.1818505

* Calculate composite reliability
display "Composite Reliability = " (`sum_squared_loadings' / (`sum_squared_loadings' + `sum_error_variances'))



//composite reliability für avg_PU
sem (avg_PU -> v_74 v_75 v_76 v_77 v_78 v_79 v_80 v_81 v_82 v_83)

* Sum of factor loadings
local sum_loadings = 0.9155156 + 1.040465 + 1.056937 + 1.010922 + 1.065438 + 1.049044 + 0.8556036 +
1.051708 + 1.017694 + 0.936672

* Sum of squared loadings
local sum_squared_loadings = `sum_loadings' * `sum_loadings'

* Sum of error variances
local sum_error_variances = 0.2421875 + 0.2569991 + 0.2385306 + 0.2134752 + 0.2190467 + 0.2442933 +
0.5440655 + 0.4336947 + 0.3814784 + 0.620164

* Calculate composite reliability
display "Composite Reliability = " (`sum_squared_loadings' / (`sum_squared_loadings' + `sum_error_variances'))


//composite reliability für job_loss
```

```
sem (job_loss -> v_64 v_65_rev v_66 v_67)

* Sum of factor loadings
local sum_loadings = 1.022967 + 0.8411855 + 1.046898 + 1.088949

* Sum of squared loadings
local sum_squared_loadings = `sum_loadings' * `sum_loadings'

* Sum of error variances
local sum_error_variances = 0.196539 + 0.2726073 + 0.3271452 + 0.1901962

* Calculate composite reliability
display "Composite Reliability = " (`sum_squared_loadings' / (`sum_squared_loadings' + `sum_error_variances'))


//composite reliability für avg_commitment
sem (avg_commitment -> v_49 v_51_rev v_52 v_54 v_56 v_61)

* Sum of factor loadings
local sum_loadings = 0.9806583 + 0.9470595 + 0.9692084 + 0.9324813 + 1.036143 + 1.134449

* Sum of squared loadings
local sum_squared_loadings = `sum_loadings' * `sum_loadings'

* Sum of error variances
local sum_error_variances = 0.2815411 + 0.9208031 + 0.5904817 + 0.1959047 + 0.1631731 + 0.3411645

* Calculate composite reliability
display "Composite Reliability = " (`sum_squared_loadings' / (`sum_squared_loadings' + `sum_error_variances'))



// Demographische Daten
* Deskriptive Statistik für das Alter
summarize age

* Häufigkeitstabelle für das Geschlecht
tabulate gender

* Häufigkeitstabelle für den Bildungsstand
tabulate education

* Kreuztabelle Geschlecht nach Bildungsstand
tabulate gender education

*Realismus check
sum realism

//Deskriptive Statistik
correlate age education if education != 7

correlate age job_loss avg_commitment avg_tam

correlate age avg_tam avg_PEOU avg_PU

//Median age und ANova age --> EXPLORATIV
sum age, detail
mean avg_PEOU if age >=32
mean avg_PEOU if age  < 32

* Erstellen der Altersgruppen-Variable
gen age_split = .
replace age_split = 1 if age < 30
replace age_split = 2 if age >= 30

* ANOVA durchführen
anova avg_PEOU age_split
```

```
//alter nach Geschlechts
mean age if gender == 1
mean age if gender == 2

//ChatGPT Nutzung
tab chatGPT_priv
correl age chatGPT_priv

correlate chatGPT_priv education if education != 7


//Innovationsfreudigkeit
tab open_innov
sum open_innov
correl open_innov age
correl open_innov chatGPT_priv
mean open_innov if gender == 1
mean open_innov if gender == 2
anova open_innov gender
*asdoc anova open_innov gender



//anova für Innovation nach education
anova open_innov education if education != 1 & education != 2 & education != 6 & education != 7


// job_loss und Innovationsfreudigkeit
correl job_loss open_innov
regress job_loss open_innov


// H1: Einfluss des Führungsstils auf die Technologieakzeptanz

//levene's test
robvar avg_tam, by(lead_style)


//ANCOVA
anova avg_tam i.lead_style c.chatGPT_priv c.open_innov



**H2 commitment mediiert die technologieakzeptanz
**Vorraussetzungen prüfen
*linearity
twoway (scatter avg_tam avg_commitment) (lfit avg_tam avg_commitment)
*normalverteilung
histogram avg_tam, normal
qnorm avg_tam
histogram avg_commitment, normal
qnorm avg_commitment

*Finale Analyse H2
*Mediation
mediate (avg_tam, linear) (avg_commitment, linear) (lead_style), all
*Structured equation modeling
sem (avg_commitment <- lead_style) (avg_tam <- lead_style avg_commitment)
*SEM mit Kontrollvariablen
sem (lead_style -> avg_commitment, ) (lead_style -> avg_tam, ) (avg_commitment -> avg_tam, ) (open_innov ->
avg_tam, ) (chatGPT_priv -> avg_tam, ), nocapslatent


*H3 Fear of job loss mediiert die beziehung von leadership style zu technology acceptance
**Vorraussetzungen prüfen
*linearity
twoway (scatter avg_tam job_loss) (lfit avg_tam job_loss)
```

*normal distribution der residuen
regress job_loss lead_style
predict residuals, residuals

histogram residuals, normal
qnorm residuals
swilk residuals

* Analyse H3
*Mediation
*SEM mit Kontrollvariablen
sem (lead_style -> job_loss,) (lead_style -> avg_tam,) (job_loss -> avg_tam,) (open_innov -> avg_tam,)
(chatGPT_priv -> avg_tam,), nocapslatent

*H4 Interaction
anova avg_tam lead_style freq lead_style#freq c.open_innov c.chatGPT_priv
*-> Interpretation mit Post-hoc tests: entfällt da nicht signifikant
pwcompare lead_style freq lead_style#freq, mcompare(bonferroni) effects

*Controllvariablen
* check ob covariates (controllvariablen) sind unabhängig von der abhängigen Variable (c_0001)
ttest open_innov, by(lead_style)
ttest chatGPT_priv, by(lead_style)
*Ja, sie sind unabhängig

*ANCOVA
anova avg_tam i.lead_style c.chatGPT_priv c.open_innov
*checking the homogeneity of regression slopes assumption
anova avg_tam i.lead_style c.chatGPT_priv c.open_innov c.open_innov#c_0001 c.chatGPT_priv#c_0001

*Goodness of Link Test
reg avg_tam job_loss avg_commitment lead_style open_innov chatGPT_priv
linktest

Appendix J: Questionnaire

Questionnaire

1 Introduction

Dear participants,

Thank you for taking part in this survey.

Please note that you will not be able to change your answer once you have reached the next page of the questionnaire.

Participation in this survey is voluntary and can be canceled at any time by closing the Internet browser; the data entered will then be deleted. All data collected will be treated anonymously and with absolute confidentiality. No personal or other information that allows conclusions to be drawn about your person will be collected. The data will not be passed on to third parties outside the research team at Freie Universität Berlin. The EU data protection guidelines apply.

By completing this questionnaire, you declare that you have understood this information and confirm your voluntary participation.

We are very pleased that you are supporting us in our research through your participation

2 Working with Computer

Have you ever heard of ChatGPT?

- ○ yes
- ○ no

3.1 Final page

Unfortunately, you do not meet the requirements to participate in this survey. Thank you for your commitment.

To get back to Prolific: https://app.prolific.com/submissions/complete?cc=C26611BA and enter the code C26611BA

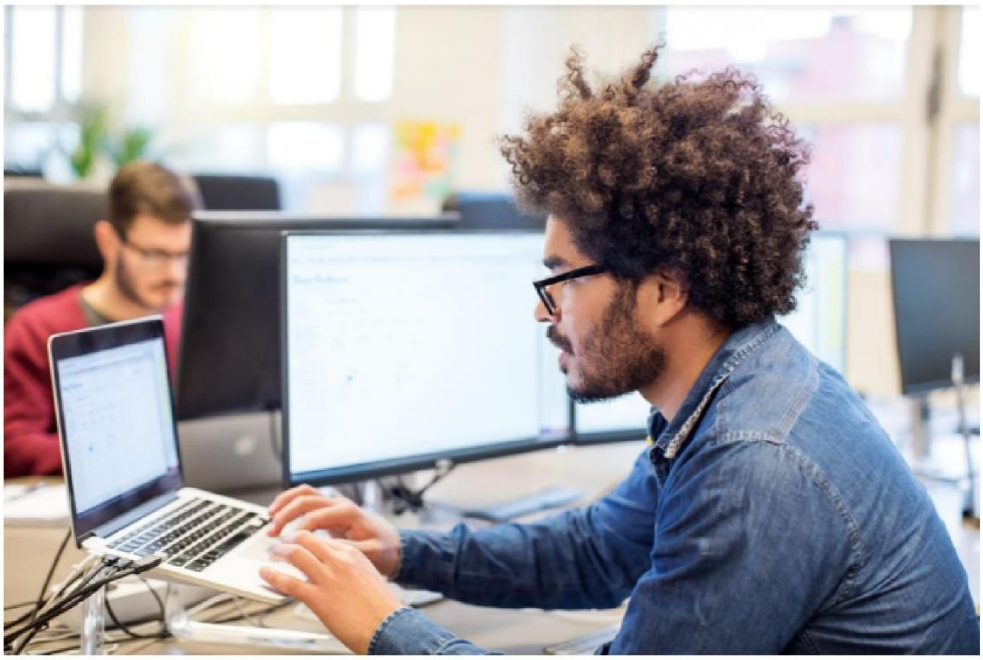
We hope you have a great day!

4 Explanation Experiment

The following pages are about a fictional company.

Please **imagine yourself working in this company**.

You work in a field where regular computer use is essential (e.g., Marketing, Sales, Finance, HR, Procurement).



5 Company Description

Nexus Enterprises is a medium-sized company that operates in various sectors, offering a range of products and services to both businesses and consumers.
Founded in 2005, the company has experienced steady growth and now employs approximately 3,000 people across several locations. Employees work in various departments, including research and development, marketing, customer service, and operations. The work environment at Nexus is professional yet relaxed, with a mix of open-plan offices and collaborative spaces.
Nexus provides standard employment benefits and opportunities for career growth.

5.1.1 Scenario

Image you open your e-mail inbox and see this e-mail from your manager

Dear Team,

I'm thrilled to share an exciting opportunity that has the potential to enhance our creativity and efficiency. We're introducing NexusGPT as a new tool available to all team members who wish to explore its capabilities.

NexusGPT is an AI assistant just like ChatGPT that can help with various tasks, from brainstorming ideas to drafting emails.
I encourage you to explore how it might support your work and spark innovation.

- We'll create a forum for sharing experiences and creative uses of the tool.
- I'm eager to hear your ideas on how we can leverage NexusGPT to drive our mission forward.

Remember, this is about augmenting our human intelligence, not replacing it. Your unique insights remain our most valuable asset. I'm excited to see how those who choose to use NexusGPT might innovate and grow.

Let's embrace this opportunity to learn and evolve together.

Best regards
Your manager

5.2.1 Scenario

Image you open your e-mail inbox and see this mail from your manager

Dear Team,

I'm writing to inform you that NexusGPT, an AI-powered assistant like ChatGPT that can help with various tasks, from brainstorming ideas to drafting emails, is now available for use in our organization.
While the use is voluntary, I want to highlight the potential benefits of using this tool:

- Estimated 15% increase in task completion speed
- Potential 30% reduction in time spent on routine queries
- Possibility of improving client response times by 25%

Regards

Regards,

your manager

6 Interaction Frequency

Please read the following text carefully and try to immerse yourself as thoroughly as possible into the scenario.

6.1.1 Scenario

Imagine you work in a team at Nexus where you communicate and interact with your manager **daily.**

6.2.1 Scenario

Imagine you work in a team at Nexus where you communicate and interact with your manager sometimes (every other week or once a month)

7 organizational commitment

Please imagine you are working at Nexus while answering

	completely disagree				completely agree
I am willing to put in a great deal of effort beyond that normally expected in order to help nexus be successful.	○	○	○	○	○
I feel very little loyalty to Nexus.	○	○	○	○	○
I would accept almost any type of job assignment in order to keep working for Nexus	○	○	○	○	○
I am proud to tell others that I am part of Nexus.	○	○	○	○	○
Nexus really inspires the very best in me in the way of job performance.	○	○	○	○	○
I really care about the fate of Nexus.	○	○	○	○	○

8 Insecurity/Uncertainty

Thinking about the introduction of the AI tool NexusGPT in your workplace, how do you feel?

	completely disagree				completely agree
Chances are, I will soon lose my job.	○	○	○	○	○
I am sure I can keep my job.	○	○	○	○	○
I feel insecure about the future of my job.	○	○	○	○	○
I think I might lose my job in the near future.	○	○	○	○	○

9 Technology Acceptance 2

For the following questions you are asked to think of the introduced NexusGPT that works like ChatGPT

	completely disgree				completely agree
Learning to operate NexusGPT is easy for me	○	○	○	○	○
I find it easy to get NexusGPT to do what I want it to do.	○	○	○	○	○
My interaction with NexusGPT is clear and understandable.	○	○	○	○	○
I find NexusGPT to be flexible to interact with.	○	○	○	○	○
It is easy for me to become skillful at using NexusGPT	○	○	○	○	○

	completely disagree				completely agree
Using NexusGPT can enable me to accomplish tasks more quickly.	○	○	○	○	○
Using NexusGPT can improve my job performance.	○	○	○	○	○
Using NexusGPT can make it easier to do my job.	○	○	○	○	○
Using NexusGPT in my job can increase my productivity.	○	○	○	○	○
Using NexusGPT can enhance my effectiveness on the job.	○	○	○	○	○
I find NexusGPT useful in my job.	○	○	○	○	○

	completely disagree				completely agree
Knowledge of NexusGPT can increase my flexibility of changing jobs	○	○	○	○	○
Knowledge of NexusGPT can increase the opportunity for more meaningful work.	○	○	○	○	○
Knowledge of NexusGPT can increase the opportunity for preferred future job	○	○	○	○	○

assignments

Knowledge of NexusGPT can increase the opportunity to gain job security	○	○	○	○	○
I am attentive and click on completely agree	○	○	○	○	○

10 Manipulation Check

During the survey, you have read a description of a scenario. Please remember this to answer the following questions.

The scenario describes ...

a manager who daily interacts and communicates with you

- ○ false
- ○ true

a manager who inspires you and wants to grow together

- ○ false
- ○ true

How realistic do you think the scenario shown in the survey is?

- ○ completely unrealistic
- ○
- ○
- ○
- ○ completely realistic

11 Demographics

What is your age?

What gender do you identify with?

- ○ male
- ○ female

- ○ diverse

What is your highest level of education?

- ○ No degree
- ○ Intermediate school leaving certificate
- ○ High school diploma / A-levels
- ○ Bachelor's degree
- ○ Master's degree
- ○ Phd
- ○ Other

How open are you to embracing new ideas and innovations in your life?

- ○ not at all open
- ○
- ○ neutral
- ○
- ○ very open

How often do you use ChatGPT in your life?

- ○ never
- ○
- ○ sometimes
- ○
- ○ very often

Please enter your Prolific ID

12 Final page

Thank you for completing the survey.

to get back to Prolific:
https://app.prolific.com/submissions/complete?cc=C1E9QE3J

and enter the code: C1E9QE3J