

“Hello, I’m your Edge Case!”

or

“No, seriously! How *do* you ask someone  
for their gender on the internet?!”

$\lambda$ Totoro

36c3, Chaos West



@lambdaTotoro (@chaos.social)

# Who am I?

Hello! I am  $\lambda$ Totoro. Good to see you!  
I am many things, among them ...

- ... nonbinary<sup>1</sup>
- ... a M.Sc. in Intelligent Systems
- ... a CS PhD student @ FAU Erlangen
- ... a science communicator
- ... dealing with this since 10 years ago.



---

<sup>1</sup>Pronouns: he/him or they/them

## What is this talk? (1)

It's a talk about this:

### 8.4 **Bitte geben Sie Ihr Geschlecht an.**

☐

männlich

☐

weiblich

☐

sonstiges

☐

keine Angabe

## What is this talk? (2)

This is a talk on forms and about the responsibilities of people who design them.  
It's a talk about how technology by itself is not neutral.

## What is this talk? (2)

This is a talk on forms and about the responsibilities of people who design them.  
It's a talk about how technology by itself is not neutral.

### **Content Notes:**

*Discussion of transmisia, intermisia, involuntary surgery*

## What is this talk? (2)

This is a talk on forms and about the responsibilities of people who design them. It's a talk about how technology by itself is not neutral.

### **Content Notes:**

*Discussion of transmisia, intermisia, involuntary surgery*

I aim for roughly the following composition:

- One part Education, “Humans 201”
- One part Advice, “Good form design”
- One part Fun, “Hilarious Form Fails”

Male ▼

Please select gender

Male

Female

Venezuela

ount

# Axioms

A few things this talk is *not* an invitation to debate:

- *Trans people exist.*

Trans women are women. Trans men are men. Nonbinary people are nonbinary.

- *Cultural differences exist.*

Culture influences almost every aspect of our lives. A way of doing things is not less valid because it is new or strange to you.

><((((\*>



# Why is this important?

Sloppy work on this end of your software...

- ...hurts your data.
- ...hurts your users.
- ...hurts yourself.

Nobody likes unnecessary frustration.



Conclusions, up front!

The central points of this talk are as follows:

## Conclusions, up front!

The central points of this talk are as follows:

- **Make the model fit the user and not vice versa!**  
*All models are wrong, some are useful. Stereotypes aren't!*

## Conclusions, up front!

The central points of this talk are as follows:

- **Make the model fit the user and not vice versa!**

*All models are wrong, some are useful. Stereotypes aren't!*

- **Humans are moving targets!**

*Humans change all the time. Your model will have to change with them!*

## Conclusions, up front!

The central points of this talk are as follows:

- **Make the model fit the user and not vice versa!**

*All models are wrong, some are useful. Stereotypes aren't!*

- **Humans are moving targets!**

*Humans change all the time. Your model will have to change with them!*

- **The empty model makes the fewest mistakes!**

*You can't draw wrong conclusions from data you don't collect.*

## Conclusions, up front!

The central points of this talk are as follows:

- **Make the model fit the user and not vice versa!**  
*All models are wrong, some are useful. Stereotypes aren't!*
- **Humans are moving targets!**  
*Humans change all the time. Your model will have to change with them!*
- **The empty model makes the fewest mistakes!**  
*You can't draw wrong conclusions from data you don't collect.*
- **Transparency is key!**  
*Make sure that both you and your users know what you're using the data for.*

Hello!  
I'm your edge case!

There's only two genders...



**\*Gender**

-- Please Select --



-- Please Select --



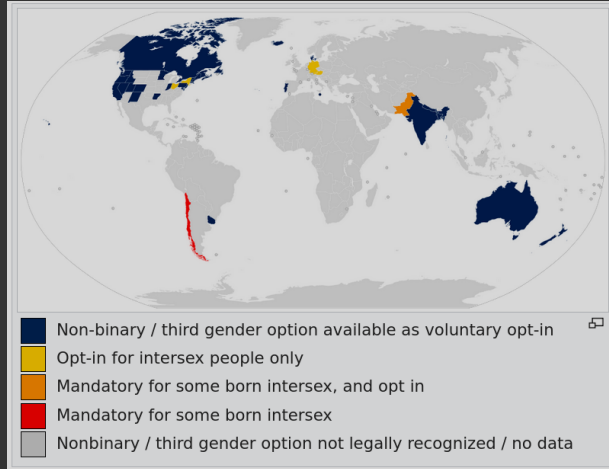
Male



1

ADD TO CART

# Legal Recognition for Nonbinary People



There's *more* than two genders!

⇒ *Don't store gender in a Boolean.*

Okay, three! There's only three genders!

Please select your Gender?



Female



LGBT



Male

(LGBT = Lesbian, Gay, Bi, Trans  $\notin$  Genders)

Even corporations are catching on...

**WORLD**

## **WHAT DO TINDER'S 37 NEW GENDER IDENTITY OPTIONS MEAN?**

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST

Even corporations are catching on...

**WORLD**

## **WHAT DO TINDER'S 37 NEW GENDER IDENTITY OPTIONS MEAN?**

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST



Even corporations are catching on...

**WORLD**

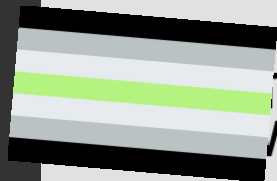
## WHAT DO TINDER'S 37 NEW GENDER IDENTITY OPTIONS MEAN?

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST





Even corporations are catching on...

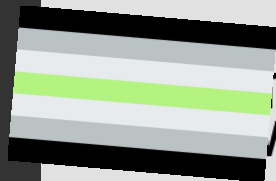


## TINDER'S 37 NEW GENDER IDENTITY MEAN?

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST



Even corporations are catching on...

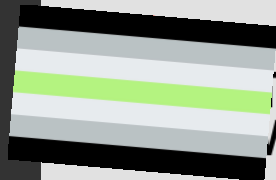


## TINDER'S 37 NEW GENDER IDENTITY MEAN?

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST



Even corporations are catching on...

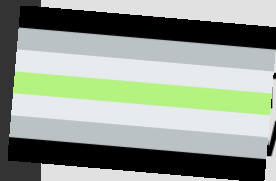


## WELLS FARGO'S 37 NEW GENDER IDENTITY MEAN?

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST



Even corporations are catching on...

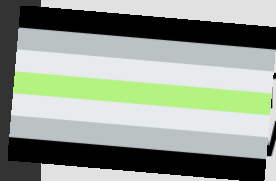


## INDICATORS OF NEW GENDER IDENTITY MEAN?

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST



Even corporations are catching on...

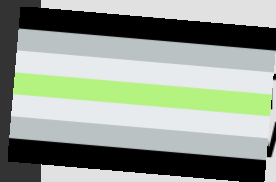


...TINDER'S GAY NETWORK  
...MEAN?

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST

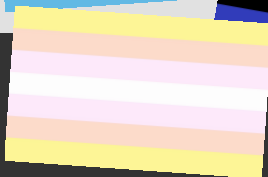
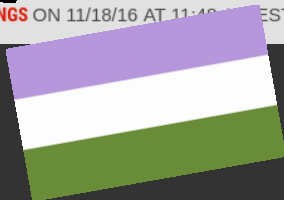


Even corporations are catching on...



...TINDER'S GAY NETWORK  
...MEAN?

BY **LUCY CLARKE-BILLINGS** ON 11/18/16 AT 11:48 AM EST



Even corporations are catching on...



I see, it's not three either.

But however many you just said is enough, right?



## Humans are still a Moving Target

Gender

- ☐ Female
- ☐ Male
- ☒ Add your gender

Demiboy

Your gender will not be displayed publicly.

Cancel

Save changes

*It's not a statistical outlier if enough people do it...*

There's *so many* genders!

⇒ *Don't store gender in an enum, either.*

But there's only two *biological sexes*... right?

## Intersex

If you are born with any variation of biological characteristics that don't match the "classical" categories, you might find yourself in the label "intersex".

Intersex people can have any gender identity. They are not "automatically" nonbinary.



# ***END INTERSEX SURGERY***

***INTERSEX JUSTICE PROJECT***

<http://www.intersexjusticeproject.org/>

Biology may be bimodal but it isn't binary!

*⇒ And you (probably) don't need to know.*

But there's so many options...  
That sounds like work!

# Comparative Bullshit Analysis

Mitglied werden - Deutscher BundeswehrVerband - Mozilla Firefox

Mitglied werden - Deut. x | G no love for military - Go x +

https://www.dbwv.de/mitglieds

### Persönliche Daten

01. Eintrittsdatum\*

Anrede\*

Anrede\*

Frau

Herrn

Name\*

Geburtsdatum\*

akadem. Titel

Vorname\*

Adress-Zusatz

DEUTSCHLAND

PLZ\*

Wohnort\*

Straße\*

Haus-Nr.\*

E-Mail-Adresse\*

Mobilnummer

Telefonnummer

Waren Sie bereits einmal Mitglied im DBwV?

auf alte DBwV-Mitgliedsnummern

Salutation: 2 options

Mitglied werden - Deutscher BundeswehrVerband - Mozilla Firefox

Mitglied werden - Deut. x | G no love for military - Go x +

https://www.dbwv.de/mitglieds

Titel

akadem. Titel

Name\*

Min.Dir.

Min.Rat.

Adress-Zusatz

Dr. phil.

Dr.

Prof.

DEUTSCHLAND

Dipl.-Ing.

PLZ\*

Wohnort\*

Dr. h. c.

Straße\*

Dr. med.

E-Mail-Adresse\*

Dr. vet.

Mobilnummer

Dipl.-Inform.

Dipl.-Päd.

Dipl.-Betw.

Präsident

Dipl.-Kfm.

Waren Sie bereits einmal Mitglied im DBwV?

Ja

Nein

Dipl.-Doz. Dr.

Dipl.-Oec.-troph.

Dipl.-Wi.-Ing.

Dipl.-Volksw.

Dr. Dr.

### Dienstliche Daten

Ich bin\*

Dienstgrad

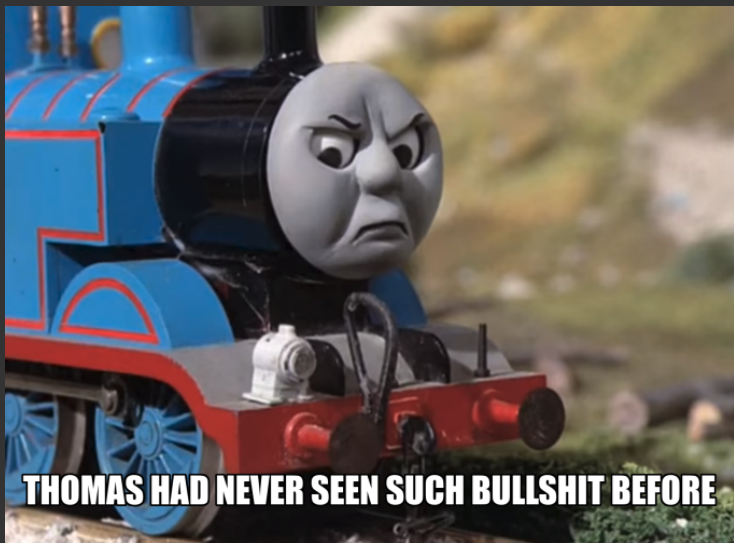
Academic title: 71 options



Not asking is always an option!

⇒ *Either the information is needed or not, act accordingly.*

Can I just ask for preferred salutation  
and infer gender from that?

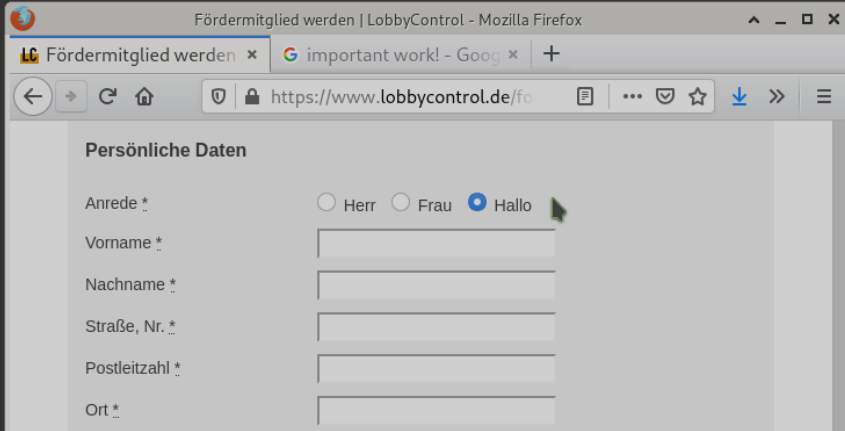


**THOMAS HAD NEVER SEEN SUCH BULLSHIT BEFORE**

# Guessing gender doesn't work!

⇒ *Not from name, face, tweets, or anything.*  
*You will get this wrong!*

# Salutations: Positive Example



Fördermitglied werden | LobbyControl - Mozilla Firefox

Fördermitglied werden x important work! - Goog x +

https://www.lobbycontrol.de/fo

### Persönliche Daten

Anrede \* ☐ Herr ☐ Frau ☒ Hallo

Vorname \*

Nachname \*

Straße, Nr. \*

Postleitzahl \*

Ort \*

Salutations need neutral options too!

⇒ *English has “Mx.”, but “Hello!” works everywhere!*

## Case Study: Gender in Germany

Gender Marker  $\neq$  Biological Configuration  $\neq$  Gender

- **Gender Marker: Four options**

M / F / / D

- **Biological Configuration: Many options!**

Two dyadic (= not inter), inter in numerous combinations.

- **Gender: Countless options!**

Man, Woman, Genderfluid, Agender, ...

# German Political Parties

SPD Mitglied werden | Schritt 2 - Anschrift - Mozilla Firefox

SPD Mitglied werden | x G wer hat uns verraten? - x +

https://mitgliedwerden.spd.de/eintritt

**SPD**

**Staatsangehörigkeit**

Deutsch

**Geburtsdatum (Tag/Monat/Jahr)**

(wählen) (wählen) (wählen)

**Geschlecht**

☐ Weiblich ☐ Männlich

**Datenschutz**

Deine im Rahmen der Mitgliedschaft erhobenen Daten werden von der SPD innerhalb der Partei-Organisation, also auch von ihren Gliederungen, im gesetzlich zulässigen Umfang für Zwecke der Mitgliedschaft, insbesondere zur postalischen Information über politische Themen und Veranstaltungen auch



# German Political Parties

The image shows a screenshot of a web browser displaying the CSU (Christian Social Union) membership application form. The browser's address bar shows the URL <https://www.csu.de/mitgliedsantrag/>. The page features the CSU logo and a blue header. The form is titled "Mitgliedsantrag" and is divided into three steps: "1. Persönliche Daten", "2.", and "3.". The first step is currently active. Below the step indicators, there are input fields for "Titel" (Title) with a dropdown menu showing "Bitte wählen", "Anrede\*" (Address) with radio buttons for "Frau" and "Herr", and "Vorname\*" (First Name) with a text input field. The form is presented in a slightly tilted perspective, suggesting it is a digital document or a screenshot of a physical form.

# German Political Parties

The image shows a stack of overlapping browser windows displaying the membership registration page of the Christlich Demokratische Union Deutschlands (CDU). The top window is titled "Mitglied werden! | Christlich Demokratische Union Deutschlands - Mozilla Firefox" and shows the URL "https://www.cdu.de/mitgliedsform". The page has a navigation bar with links: STARTSEITE, GRUNDSATZPROGRAMM, THEMEN, SERVICE, PARTEI, PRESSE, and SUCHE. The main heading is "Mitglied werden!". Below it, a paragraph states: "Es freut uns sehr, dass Sie Mitglied der CDU Deutschlands werden wollen. Wir bitten Sie, hierzu das folgende Formular auszufüllen. Sie werden hierbei automatisch und in wenigen Schritten durch das Aufnahmeformular geführt." A progress indicator shows four steps: 1. Ihre Kontaktdaten (selected), 2. Freiwillige Angaben, 3. Mitgliedsbeitrag, and 4. Absenden. The text continues: "Ich beantrage die Aufnahme in die Christlich Demokratische Union Deutschlands (CDU) und erkläre, dass ich keiner anderen Partei oder anderen politischen, mit der CDU konkurrierenden Gruppierung oder deren parlamentarischen Vertretung angehöre." The form includes fields for "Anrede: \*" with radio buttons for "Frau" and "Herr", "Titel:", and "Vorname: \*".

Mitglied werden! | Christlich Demokratische Union Deutschlands - Mozilla Firefox

evils and corrupt - Google

https://www.cdu.de/mitgliedsform

STARTSEITE GRUNDSATZPROGRAMM THEMEN SERVICE PARTEI PRESSE SUCHE

Startseite | Mitgliedsformular

## Mitglied werden!

Es freut uns sehr, dass Sie Mitglied der CDU Deutschlands werden wollen. Wir bitten Sie, hierzu das folgende Formular auszufüllen. Sie werden hierbei automatisch und in wenigen Schritten durch das Aufnahmeformular geführt.

- 1 Ihre Kontaktdaten
- 2 Freiwillige Angaben
- 3 Mitgliedsbeitrag
- 4 Absenden

Ich beantrage die Aufnahme in die Christlich Demokratische Union Deutschlands (CDU) und erkläre, dass ich keiner anderen Partei oder anderen politischen, mit der CDU konkurrierenden Gruppierung oder deren parlamentarischen Vertretung angehöre.

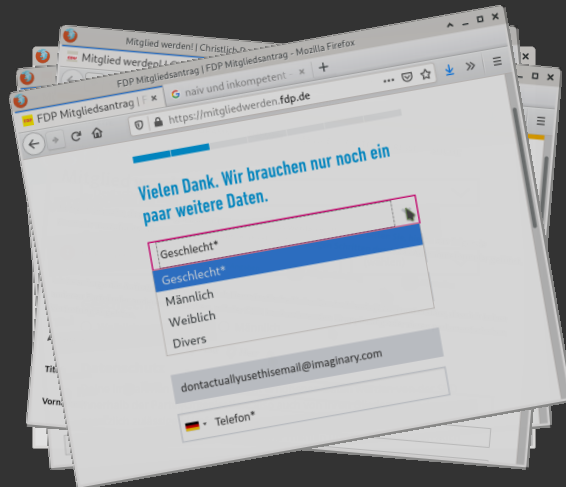
Anrede: \*

☐ Frau ☐ Herr

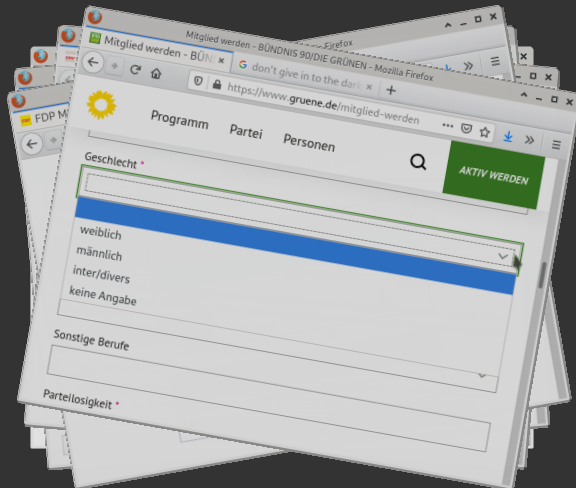
Titel:

Vorname: \*

# German Political Parties



# German Political Parties



# German Political Parties



Mitglied werden: DIE LINKE - Mozilla Firefox

https://www.die-linke.de/

90%

**Hiermit erkläre ich,**

VORNAME \*  NAME \*

EMAIL-ADRESSE \*

**meinen Eintritt in die Partei DIE LINKE,** Mitglied der Partei der Europäischen Linken (EL).

Ich bekenne mich zu den programmatischen Grundsätzen der Partei DIE LINKE, erkenne die Bundessatzung an und bin nicht Mitglied einer anderen Partei im Sinne des Parteiengesetzes.

**Weitere Angaben zur Person**

GEBURTSDATUM \*

Beruf  TÄTIG ALS

**Anschrift**

Nach dem Einkommensteuergesetz (EStG) sind Zuwendungen von natürlichen Personen (Spenden, Mandatsträger- und Mitgliedsbeiträge) an politische Parteien wie folgt steuerlich abzugsfähig:

Zuwendungen bis zu einer Höhe von 1.650,- €, bei zusammen veranlagten Ehegatten 3.300,- € jährlich, werden nach dem EStG § 34 g berücksichtigt, indem 50% des zugewendeten Betrages, d.h. max. 825,- € bzw. 1.650,- €, von der Steuerschuld abgezogen werden.

Außerdem sind Zuwendungen an politische Parteien bis zu einer Höhe von 1.650,- € bzw. 3.300,- € nach dem EStG § 10 b Absatz 2 steuerlich ab-



No, but *seriously*!  
How *do* I ask people for their gender?!

My best take:

Before asking:

---

My best take:

Before asking:

- Make sure you *need* the information.



My best take:

Before asking:

- Make sure you *need* the information.
  - Make sure *this* is the information you need.
-

My best take:

Before asking:

- Make sure you *need* the information.
  - Make sure *this* is the information you need.
  - Make sure its *mutable* in your model.
-

## My best take:

Before asking:

- Make sure you *need* the information.
- Make sure *this* is the information you need.
- Make sure its *mutable* in your model.

*And then ask!*

Tell them, what you need the answer for and give either none or as many options as is reasonable under the circumstances<sup>2</sup> but always also give a text field for free-form answers.

---

<sup>2</sup>that's *almost always* more than 2!

## Popular with the Target Demographic

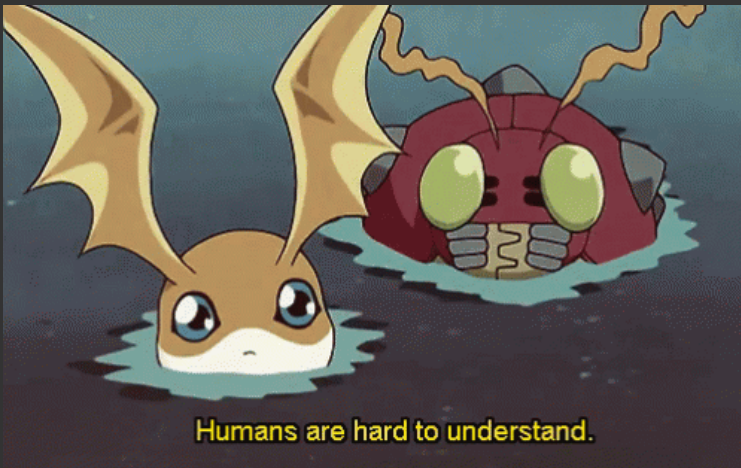
Gender	I HAVE NO GENDER, ONLY RAGE. ▼
	Female
	Male
	Agender
	Genderfluid
	<b>I HAVE NO GENDER, ONLY RAGE.</b>
	None of your business.
	Bigender
	Other

Also applies to other questions

What is your sexual orientation?

Heterosexual  
Gay Woman  
Gay Man  
Bisexual  
Danish  
Opt Out

What is your religion or belief?



Consider also: Names, Addresses, ...

## Conclusion, again!

The central points of this talk are as follows:

- **Make the model fit the user and not vice versa!**  
*All models are wrong, some are useful. Stereotypes aren't!*
- **Humans are moving targets!**  
*Humans change all the time. Your model will have to change with them!*
- **The empty model makes the fewest mistakes!**  
*You can't draw wrong conclusions from data you don't collect.*
- **Transparency is key!**  
*Make sure that both you and your users know what you're using the data for.*

## Recommendations:

*“False assumptions developers make about gender”* by @ineffyble

<https://speakerdeck.com/ineffyble/>

false-assumptions-developers-make-about-gender-and-their-sometimes-hilarious-results

*Falsehoods programmers believe about...*

- ...gender:

<https://medium.com/gender-2-0/falsehoods-programmers-believe-about-gender-f9a3512b4c9c>

- ...names:

<https://shinesolutions.com/2018/01/08/>

falsehoods-programmers-believe-about-names-with-examples/

- ...addresses:

<https://www.mjt.me.uk/posts/falsehoods-programmers-believe-about-addresses/>

*Geschickt Gendern – Das Genderwörterbuch:* <https://geschicktgendern.de/>