

# Regression Model

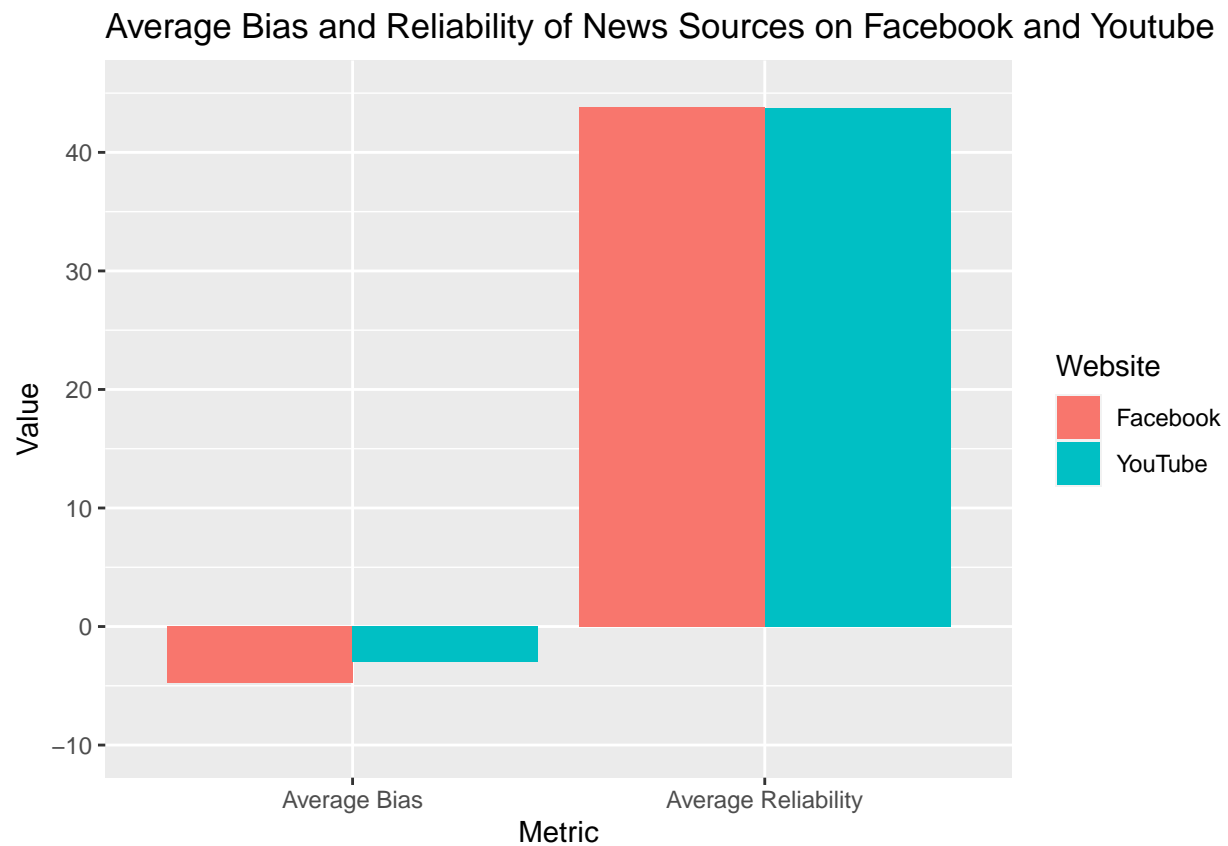
W241: Fox, George, McCleary

7/27/2022

Load and Merge Data

Clean data

Plot Data



## Create Covariates

### Run Bias Model

```
##
## t test of coefficients:
##
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)      -3.927351   0.492539  -7.9737 1.488e-13 ***
## is_male           0.327656   0.295453   1.1090 0.268856
## is_female         0.156882   0.308275   0.5089 0.611420
## is_old            -0.199845   0.242506  -0.8241 0.410943
## is_facebook       -1.703284   0.236082  -7.2148 1.308e-11 ***
## as.factor('Due Date')2022-06-19  0.221024   0.511881   0.4318 0.666393
## as.factor('Due Date')2022-06-26  1.144953   0.495511   2.3107 0.021943 *
## as.factor('Due Date')2022-07-03  0.609797   0.453855   1.3436 0.180708
## as.factor('Due Date')2022-07-10  1.054746   0.490833   2.1489 0.032929 *
## as.factor('Due Date')2022-07-17  1.481407   0.494174   2.9977 0.003089 **
## as.factor('Due Date')2022-07-24  1.369585   0.537598   2.5476 0.011651 *
## as.factor(Researcher)Carlie McCleary 0.133717   0.313834   0.4261 0.670542
## as.factor(Researcher)Hannah George -0.040516   0.262381  -0.1544 0.877448
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

### Run Reliability Model

```
##
## t test of coefficients:
##
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)      44.312954   0.275190 161.0265 < 2e-16 ***
## is_male          -0.355335   0.193433  -1.8370 0.06780 .
## is_female        -0.264884   0.191703  -1.3817 0.16870
## is_old            0.150001   0.152472   0.9838 0.32649
## is_facebook       -0.389680   0.155847  -2.5004 0.01327 *
## as.factor('Due Date')2022-06-19  0.178592   0.251971   0.7088 0.47934
## as.factor('Due Date')2022-06-26  0.336176   0.325829   1.0318 0.30352
## as.factor('Due Date')2022-07-03  0.187874   0.245503   0.7653 0.44508
## as.factor('Due Date')2022-07-10  0.567195   0.273673   2.0725 0.03959 *
## as.factor('Due Date')2022-07-17  0.453186   0.278838   1.6253 0.10579
## as.factor('Due Date')2022-07-24  0.116915   0.309155   0.3782 0.70573
## as.factor(Researcher)Carlie McCleary -0.510918   0.203391  -2.5120 0.01285 *
## as.factor(Researcher)Hannah George  0.078789   0.170965   0.4608 0.64544
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Table 1: Average Bias and Reliability Regression Models

	<i>Dependent variable:</i>	
	Value	
	(1)	(2)
is_male	0.328 (0.286)	-0.355* (0.182)
is_female	0.157 (0.288)	-0.265 (0.183)
is_old	-0.200 (0.233)	0.150 (0.148)
is_facebook	-1.703*** (0.244)	-0.390** (0.155)
as.factor('Due Date')2022-06-19	0.221 (0.417)	0.179 (0.265)
as.factor('Due Date')2022-06-26	1.145*** (0.433)	0.336 (0.275)
as.factor('Due Date')2022-07-03	0.610 (0.417)	0.188 (0.265)
as.factor('Due Date')2022-07-10	1.055** (0.439)	0.567** (0.279)
as.factor('Due Date')2022-07-17	1.481*** (0.421)	0.453* (0.268)
as.factor('Due Date')2022-07-24	1.370*** (0.450)	0.117 (0.286)
as.factor(Researcher)Carlie McCleary	0.134 (0.289)	-0.511*** (0.184)
as.factor(Researcher)Hannah George	-0.041 (0.281)	0.079 (0.179)
Constant	-3.927*** (0.412)	44.313*** (0.262)
Observations	200	200
R <sup>2</sup>	0.299	0.135
Adjusted R <sup>2</sup>	0.254	0.079
Residual Std. Error (df = 187)	1.641	1.043
F Statistic (df = 12; 187)	6.645***	2.427***

*Note:*

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

Table 2: Average Bias and Reliability Regression Models

	<i>Dependent variable:</i>	
	Value	
	(Bias)	(Reliability)
is_male	0.328 (0.286)	−0.355* (0.182)
is_female	0.157 (0.288)	−0.265 (0.183)
is_old	−0.200 (0.233)	0.150 (0.148)
is_facebook	−1.703*** (0.244)	−0.390** (0.155)
Constant	−3.927*** (0.412)	44.313*** (0.262)
Observations	200	200
R <sup>2</sup>	0.299	0.135
Adjusted R <sup>2</sup>	0.254	0.079
Residual Std. Error (df = 187)	1.641	1.043
F Statistic (df = 12; 187)	6.645***	2.427***
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	

# Stargazer Outputs

## Latex Output 1

## Latex Output 2

Table 3: Average Bias and Reliability Regression Models

	<i>Dependent variable:</i>	
	Value	
	(Bias)	(Reliability)
as.factor('Due Date')2022-06-19	0.221 (0.417)	0.179 (0.265)
as.factor('Due Date')2022-06-26	1.145*** (0.433)	0.336 (0.275)
as.factor('Due Date')2022-07-03	0.610 (0.417)	0.188 (0.265)
as.factor('Due Date')2022-07-10	1.055** (0.439)	0.567** (0.279)
as.factor('Due Date')2022-07-17	1.481*** (0.421)	0.453* (0.268)
as.factor('Due Date')2022-07-24	1.370*** (0.450)	0.117 (0.286)
as.factor(Researcher)Carlie McCleary	0.134 (0.289)	-0.511*** (0.184)
as.factor(Researcher)Hannah George	-0.041 (0.281)	0.079 (0.179)
Constant	-3.927*** (0.412)	44.313*** (0.262)
Observations	200	200
R <sup>2</sup>	0.299	0.135
Adjusted R <sup>2</sup>	0.254	0.079
Residual Std. Error (df = 187)	1.641	1.043
F Statistic (df = 12; 187)	6.645***	2.427***

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01