



# Privacy-Enhanced Event Scheduling

<http://dudle.inf.tu-dresden.de>

**Sandra Steinbrecher**

Frankfurt, Germany, March 29, 2010

# Event Scheduling

**Doodle®** Poll: Business D

**TelCo - 2009-10**

Voller Name	5. 08:00	6. 11:00	7. 10:00	7. 13:00	8. 10:00	8. 13:00
Joe	✓	✓		✓	✓	
Alice	✓		✓	✓		
Gustav	✓	✓			✓	
Beatrice		✓	✓		✓	✓
	3	3	2	2	3	1
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Abschicken

**Free/Busy**

3/04/2006 Tue 09/05/2006 Wed 09/06/2006

12:00pm 3:00pm 9:00am 12:00pm 3:00pm 9:00am 12:00pm

Attendee

Sankar P

Hobbitts

Options

Tentative Busy Out of Office No Information

Start time: 09/02/2006 09:00 AM

End time: 09/02/2006 09:30 AM

Close

**Zeitfinder**

Herzlich Willkommen! Mein Kalender

Monatsansicht

JUNI 2009

KW MO DI MI DO FR SA SO

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Anstehende Termine

Home

private

work

John

Peter

Julie

Tom

08:00

09:00

10:00

11:00

12:00

13:00

14:00

15:00

16:00

17:00

Meet John

Meeting with Peter

lunch with TelCo

write

prepare about privacy-event sc

# Privacy Problems

## Direct Inference

Will my husband vote for the date of our wedding anniversary?

**Doodle®**

**Poll: Business Dinner**

October 2009					
	Mon 19	Tue 20	Wed 21	Thu 22	Fri 23
	8:00 PM	8:00 PM	8:00 PM	8:00 PM	8:00 PM
<b>John</b>	OK		OK	OK	OK
<b>Peter</b>		OK		OK	OK
<b>Julie</b>	OK	OK		OK	
<b>Tom</b>		OK	OK	OK	OK
<b>Your name</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Count	2	3	2	4	3

# Privacy Problems

## Direct Inference

**Doodle®**

**Poll: Business Dinner**

October 2009					
Mon 19	Tue 20	Wed 21	Thu 22	Fri 23	
8:00 PM	8:00 PM	8:00 PM	8:00 PM	8:00 PM	
John	OK		OK	OK	OK
Peter		OK		OK	OK
Julie	OK	OK		OK	
Tom		OK	OK	OK	OK
Your name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Count	2	3	2	4	3

Will my **husband** vote for the date of our **wedding anniversary**?

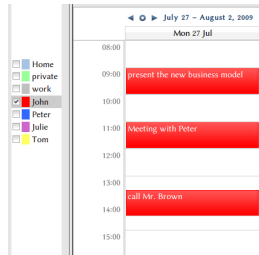
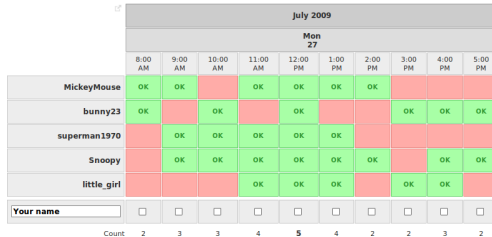
# Privacy Problems

## Indirect Inference

The availability pattern of user bunny23 looks suspiciously like the one of my employee John Doe!

**Doodle®**

Poll: Chat



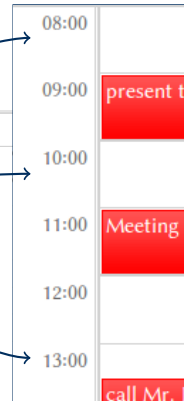
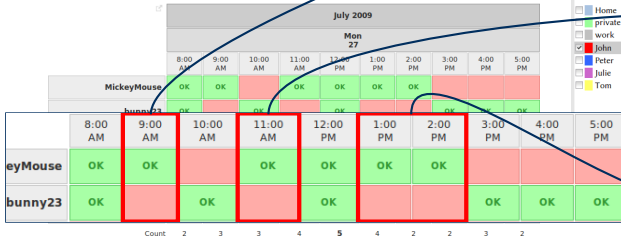
# Privacy Problems

## Indirect Inference

The availability pattern of user **bunny23** looks suspiciously like the one of my employee **John Doe**!

Doodle®

Poll: Chat



Solution?

## Business Dinner

	Apr 2010				
	Mon, 12	Tue, 13	Wed, 14	Thu, 15	Fri, 16
Name ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲
Anonymous #1	Has voted anonymously.				
Anonymous #2	Has voted anonymously.				
Anonymous #3	Has voted anonymously.				
Anonymous #4	Has voted anonymously.				
total	1	3	2	4	2

Solution?

## Business Dinner

Apr 2010					
	Mon, 12	Tue, 13	Wed, 14	Thu, 15	Fri, 16
Name ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲
Bob	Has voted anonymously.				
Carol	Has voted anonymously.				
Alice	Has voted anonymously.				
Dave	Has voted anonymously.				
total	1	3	2	4	2



Solution?

## Business Dinner

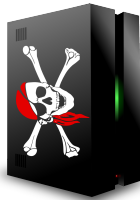
	Apr 2010				
	Mon, 12	Tue, 13	Wed, 14	Thu, 15	Fri, 16
Name ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲	20:00 ▼▲
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total	1	3	2	4	2





# Register

Secret Key:

1848baf5fbc94ac77119e2ea58af58f5c23cadfa5a08639516dcc82315fa6bad046cda38893fbf703d42c5152f587fcc14b7213e7650504022160b7dff37235039951f0098b04b92957bf6b060477dbf3fee4a17bbb4385878098c2bff6f06831df4c

Cancel

Login



# Thank you for your attention!

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**Sandra Steinbrecher**

Frankfurt, Germany, March 29, 2010