

# Ceremonies

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**Thank You**



# **Bob Blakley: Recognition**

**Bob Blakley: Recognition**  
**Nishant Kaushik: Usability**

**Bob Blakley: Recognition**  
**Nishant Kaushik: Usability**  
**Kim Cameron: Ceremonies**

# Ceremony

“A formal act or series of acts prescribed by ritual, protocol, or convention”



Dictionary

Thesaurus

ceremony

×

Q

Games & Quizzes

Thesaurus

Features

Word Finder

## Dictionary

### Definition

Synonyms

Example Sentences

Word History

Phrases Containing

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## ceremony noun

cer·e·mo·ny ˈser-ə-,mō-nē ˈse-rə-

plural **ceremonies**

[Synonyms of ceremony >](#)

**1** : a formal act or series of acts prescribed by ritual, protocol, or convention  
| the marriage *ceremony*

**2 a** : a conventional act of politeness or etiquette  
| the *ceremony* of introduction

**b** : an action performed only formally with no deep significance  
| the custom had probably been long a mere *ceremony*  
— C. Thirlwall

**c** : a routine action performed with elaborate pomp  
| Liz Claiborne Inc. chief executive officer William McComb and Liz Claiborne New York creative director Isaac Mizrahi rang the closing bell [of the New York Stock Exchange], a daily *ceremony* they followed with the first-ever fashion show on the trading floor.  
— Marc Karimzadeh

**3 a** : prescribed procedures : **USAGES**

| the *ceremony* attending an inauguration

**b** : observance of an established code of civility or politeness  
| opened the door without *ceremony* and strode in



# The Disconnect

**Analog**

---

**Digital**

**Analog**

Introduction

---

**Digital**

Registration

**Analog**

Introduction

Recognition

---

**Digital**

Registration

Authentication

**Analog**

Introduction

Recognition

**Digital**

Registration

Authentication

**Existing authentication ceremonies set a bar:**

# Existing authentication ceremonies set a bar:

Too high for all the people about whom we want higher assurance

# Existing authentication ceremonies set a bar:

Too high for all the people about whom we want higher assurance

Too low to prevent adversaries from clearing it



# A Tour of Authentication Ceremonies



# (Zero Box)

“Authentication” via:

- Browser fingerprinting
- IP address
- GeoIP



# 1 Box

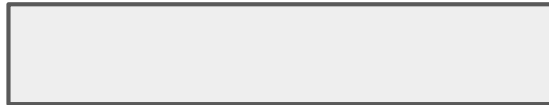


- Marketing microsites
- Person provides an identifier, typically email or phone

**Low assurance at best**



## 2 Box



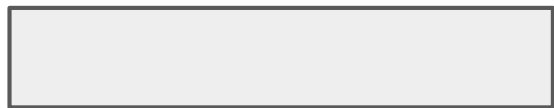


## 2 Box

*identifier*

*password*

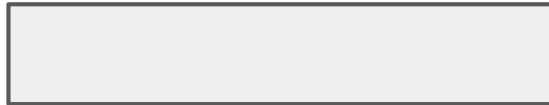
## 2 Box + 1 Box



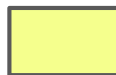
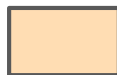
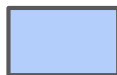
+



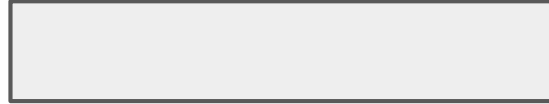
## 2 Box



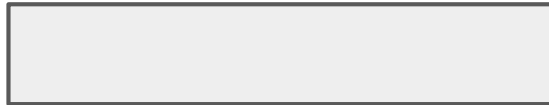
## 2 Box + Buttons



## 2 Box + (Lots of) Buttons



## 2 Box



## 2 Box + Widget



## 2 Box + Widget





## 2 Box + Widget



## 2 Box + Widget



## 2 Box + Widgets



**Inspired thinking**



+



# 1 Box + 1 Box

*identifier*

+

*something*

# May 2015

“Google quietly rolled out a new login screen for Gmail this week, and not everyone is happy with the update.”

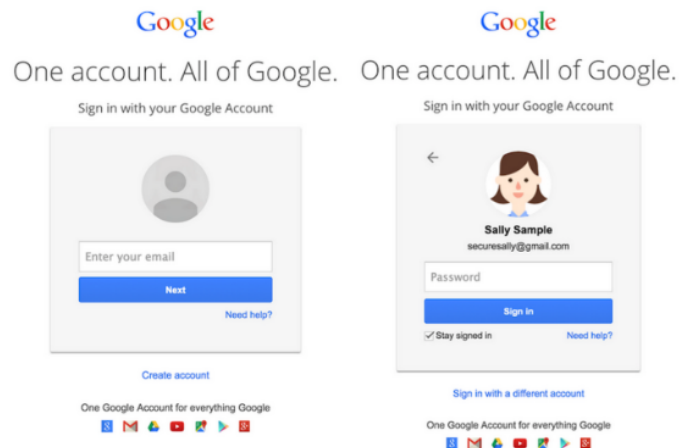


Security

## Gmail's New Login Screens Hints At A Future Beyond Passwords

Sarah Perez @sarahintampa / 4:43 PM EDT • May 13, 2015

Comment



Google quietly rolled out a new login screen for Gmail this week, and not everyone is happy with the update.

# 1 Box + 1 Box: True Innovation

*identifier*

+

*something*



# Freedom to Respond

*identifier*

+

# Freedom to Respond

*redirect*

*identifier*

+

# Freedom to Respond

*identifier*

+

*redirect*

*numbers*

# Freedom to Respond

*identifier*

+

*redirect*

*numbers*

*token*

# Freedom to Respond

*identifier*

+

*redirect*

*numbers*

*token*

*password*

# Freedom to Respond

*identifier*

+

*redirect*

*numbers*

*token*

*password*

*nothing*

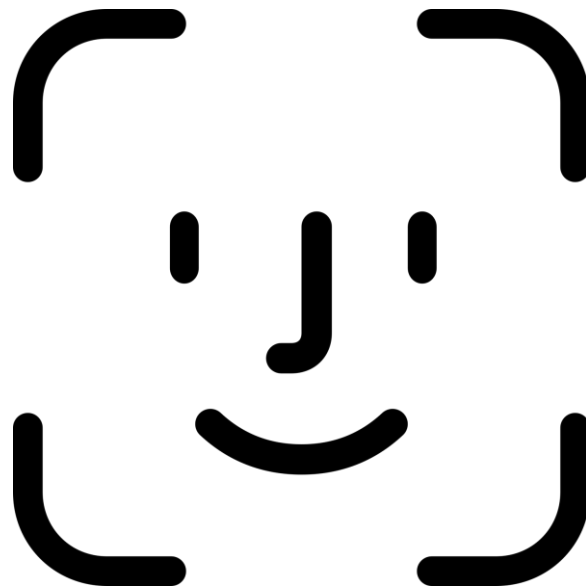
Front-End  
Ceremony

Back-End  
Process

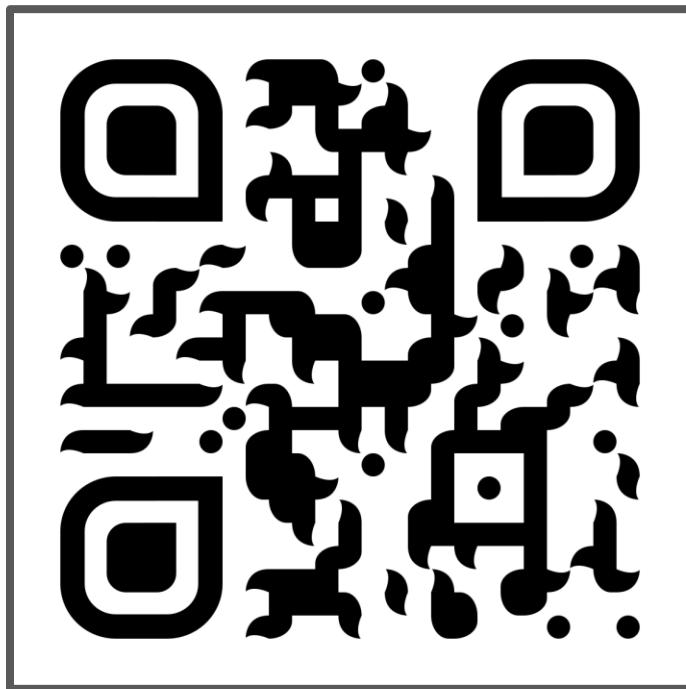
**Innovation Continues!**



# Mobile Biometrics



# QR Code



# The Tour in Retrospect

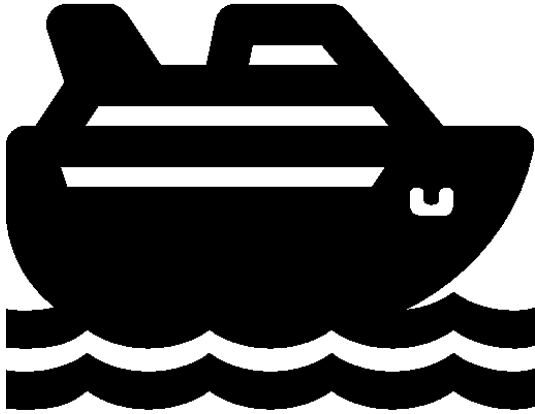
Ceremonies	0 and 1 Box
	2 Box
	1 Box + 1 Box
	<hr/>
Techniques	2 Box + 1 Box
	2 Box + Buttons
	N Box + Widgets
	Mobile Biometrics
	QR Code

# When Things Go Wrong?

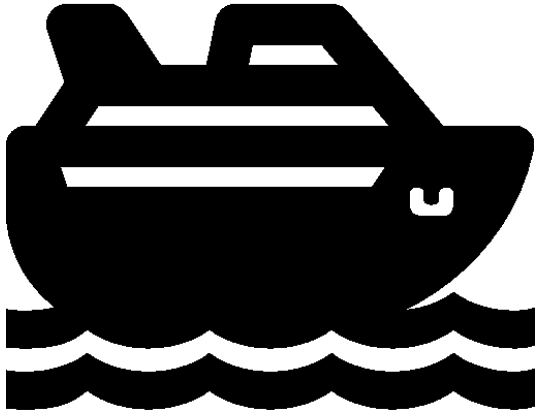
**Analog World: Failure to recognize**

**Well established process for hinting**

# Well established process for hinting

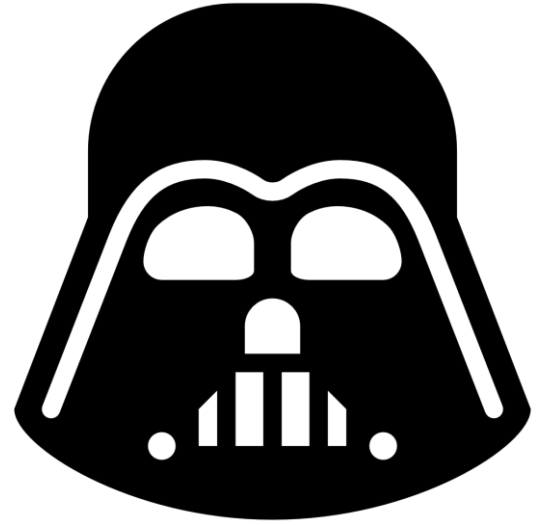
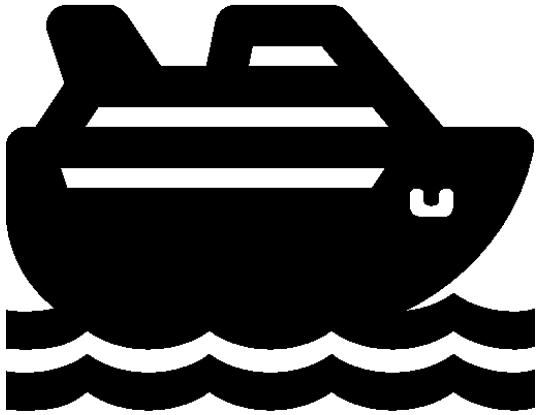


# Well established process for hinting





# Well established process for hinting



**Digital World: Failure to authenticate**

**Well established process for...**

**Well established (but kind of horrible) process  
for... setting a new static secret**

**Well established (but kind of horrible) process  
for... setting a new static secret**

Reset Password

**UN/PWD “success” isn’t  
attributed to their efficacy**

**UN/PWD “success” isn’t  
attributed to their efficacy,  
but their nearly ubiquitous consistency of  
their failure ceremonies.**

**Non-username/password ceremonies?**



# ~~Ceremonies for when things go wrong~~

# The Disconnect Deepens

**Authentication ceremonies are  
private ceremonies,**

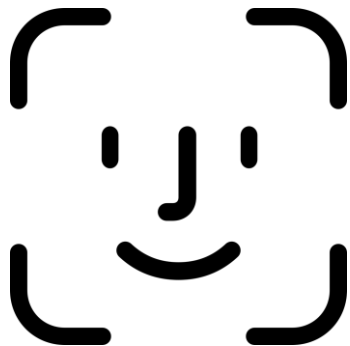
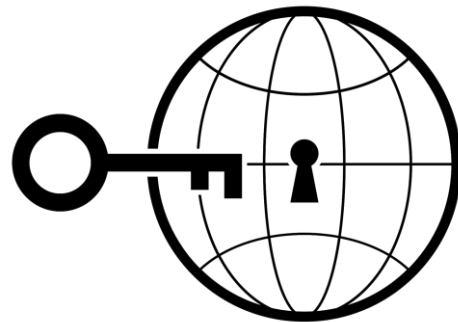
# Static secrets

**Authentication ceremonies are  
private ceremonies,  
but recognition ceremonies  
can be done in public**

# Mobile Biometric + WebAuthn



+



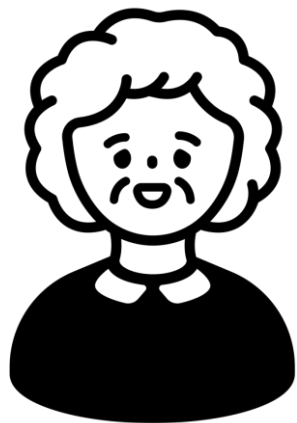
**Authentication ceremonies are  
solo ceremonies;**

*THERE'S\_ONLY*

*ONE\_KEYBOARD*



**Authentication ceremonies are  
solo ceremonies,  
but recognition ceremonies are not**



# ~~Public Ceremonies~~ ~~Group/Assisted Ceremonies~~

**Where we must go**

# Zero Box

# Zero Box

- Identified
- Tracked
- Recognized

Anti-Fraud

Anti-Fraud

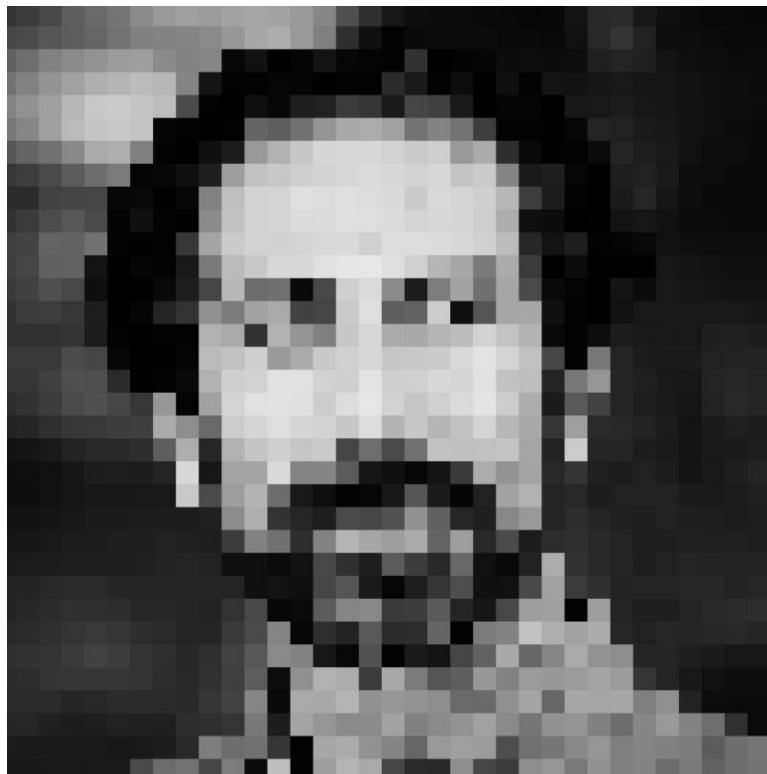
Anti-Bot



Anti-Fraud

Anti-Bot

AdTech



# What is needed

**What is needed**

Language of  
disclosure

# What is needed

Language of  
disclosure

Strong  
Hints

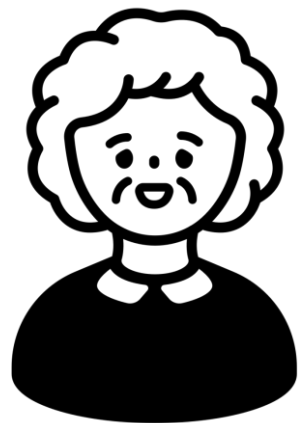
# What is needed

Language of  
disclosure

Strong  
Hints

Active  
Clients

# **Our Shared Vested Interest**





**Make authentication not be so horrible**

# Make authentication not be so horrible

Separate front-  
end ceremony  
from backend  
process

# Make authentication not be so horrible

Separate front-  
end ceremony  
from backend  
process

Fail  
consistently

# Make authentication not be so horrible

Separate front-  
end ceremony  
from backend  
process

Fail  
consistently

Design  
group/assisted  
ceremonies

# The Disconnect Redux

**Analog**

Introduction

Recognition

---

**Digital**

Registration

Authentication

**Analog  
+  
Digital**

Introduction

Recognition

# Recognition ceremonies



# Recognition ceremonies

Usable by  
everyone

# Recognition ceremonies

Usable by  
everyone

High  
assurance

# Recognition ceremonies

Usable by  
everyone

High  
assurance

Adversary  
resistant

# Thank You

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[weaveidentity.com](https://weaveidentity.com)