



HARVARD UNIVERSITY  
Information Technology

# HarvardKey: Rollout Update & Multifactor Authentication

October 2, 2015

Friday

12:00-2:00 p.m.

Maxwell Dworkin G125

# Today's Agenda

## HarvardKey

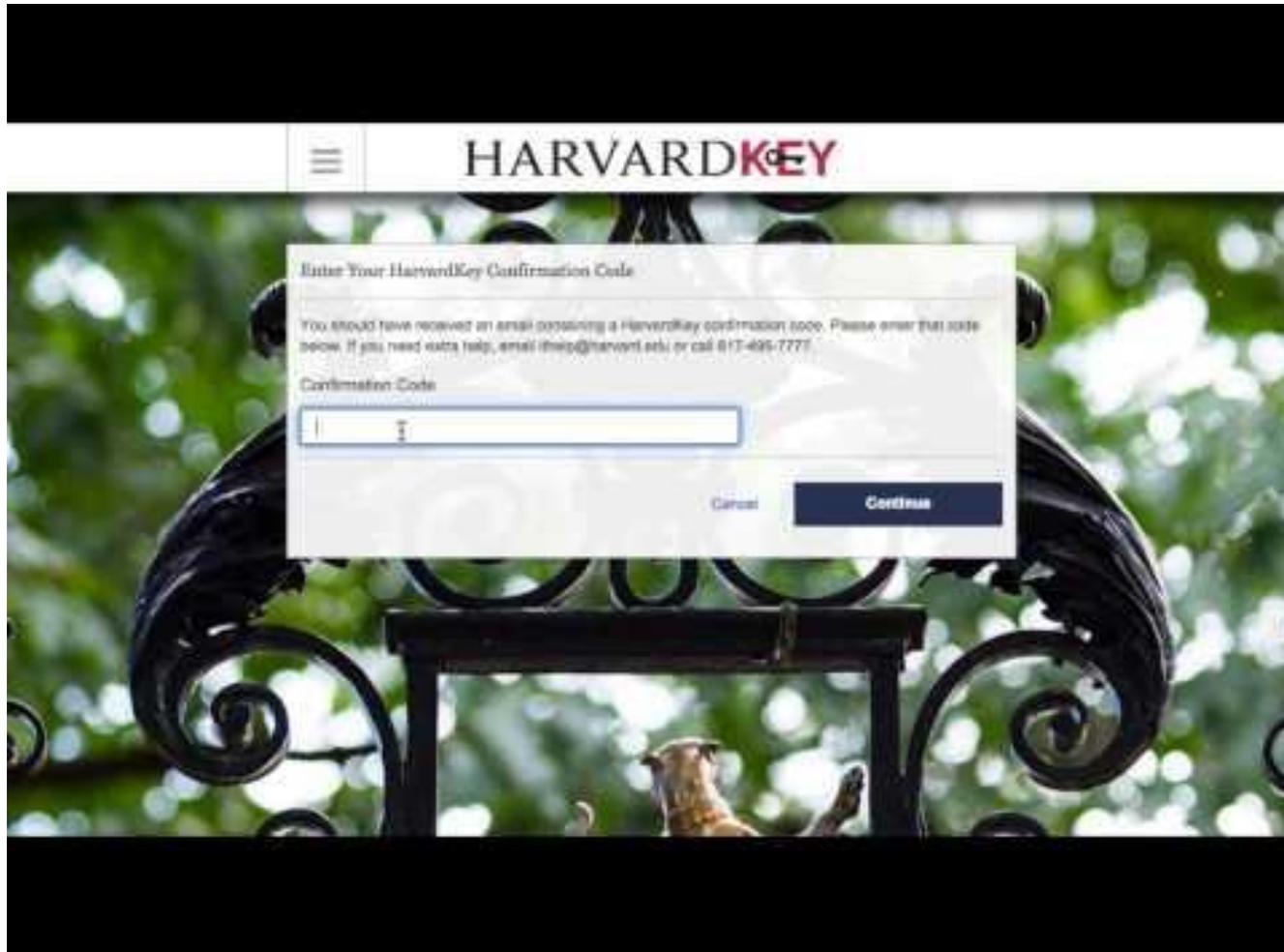
- Welcome to HarvardKey
- HarvardKey by the Numbers
- Alumni Reactions
- What Did We Learn? What's Next?

## Multifactor Authentication (MFA)

- Authentication: Who Are You?
- What's So Bad About Passwords?
- What Options Are There?
- Multifactor Authentication in HarvardKey
- Demo: Multifactor Authentication Using Duo

# Welcome to HarvardKey!

(Bonus points if you can name the narrator.)



## HarvardKey By The Numbers

- **4,515** Alumni HarvardKey accounts successfully claimed
- **1,863** applications included in September 22 rollout
- **30,000** people authenticate every day using the HarvardKey login screen
- **246** HarvardKey-related ServiceNow tickets resolved (as of this morning)
- **426** individuals logged into Alumni.Harvard using HarvardKey in the first two days after the portal's launch

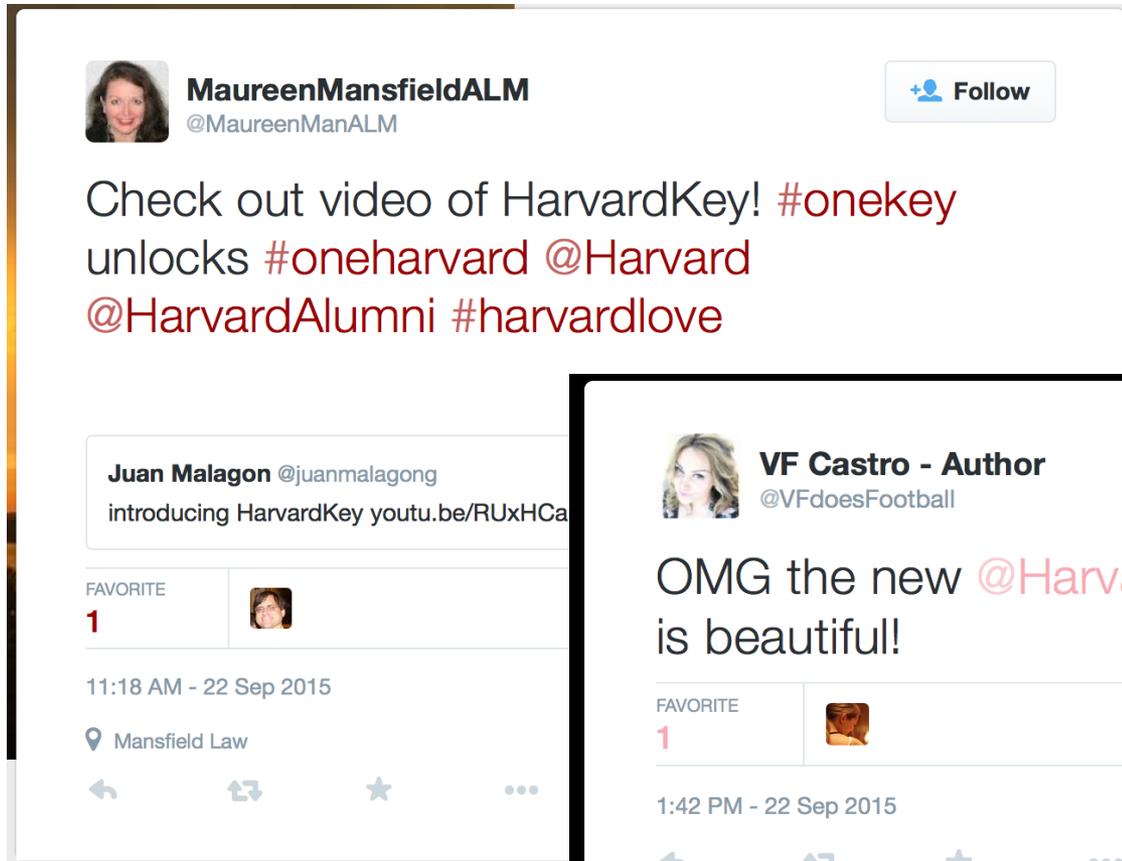
## More HarvardKey By The Numbers

- **150** person-hours on the night of go-live
- More than **20** extra help desk shifts during the first week post-rollout
- **100+** website text changes across Harvard to replace PIN-related language (and many more in progress)
- More than **100** pizzas ordered for the HarvardKey team during launch lead-up
- **Several** batches of delicious home-baked cookies
- **150** commemorative “Live Key or Die” buttons (sure to become eBay collectibles)



# Alumni Said ...

Much reaction was enthusiastic. (We've been watching for a while!)



**MaureenMansfieldALM**  
@MaureenManALM

Check out video of HarvardKey! #onekey unlocks #oneharvard @Harvard @HarvardAlumni #harvardlove

**Juan Malagon** @juanmalagong  
introducing HarvardKey youtu.be/RUxHCa

FAVORITE 1

11:18 AM - 22 Sep 2015

Mansfield Law



**VF Castro - Author**  
@VFdoesFootball

OMG the new @Harvard #HarvardKey portal is beautiful!

FAVORITE 1

1:42 PM - 22 Sep 2015

## Alumni Said ...

**Of course, not all response was positive.**

*This is just too much. I give up (and I don't do that often, as a former Harvard club president). This is the first time ever that I have had my passwords rejected – the constraints are the most restrictive that I have ever seen, and they make it impossible for me to create a password that I can remember easily.*

*Please remember that alumni, unlike people who spend most of their days at Harvard, often need the password only once or twice per month. That means great weight should be given to allowing passwords that are easy to remember.*

*Some of Harvard's guidelines on passwords make sense, but others go too far. I've never been required to have 10 characters, and I've never before been told that "&" is not a "special character" (why not?). However, the "dictionary word" exclusion is the most egregious. Ask the Harvard Psychology department what that means for memorability.*

# Our Response

**Working the help desk helped us identify documentation tweaks and hotfixes in an Agile manner.**

- IE rendering hotfix for Compatibility Mode
- UI text changes to clarify password policy
- Expanded contact info in HarvardKey documentation
- Better guidance on how to reset user passwords for non-HarvardKey login types
- Accessibility remediation
- Forensics on app problems vs. user error
- Improvements to Harvard LDAP

## What Did We Learn?

**Our experiences with the September 22 Alumni rollout have helped us refine our plans for future HarvardKey launch waves.**

- Having IAM staff co-located with Service Desk and HAA was very valuable — we will continue that with new populations, plus set up “Here to Help” tables for HarvardKey claim
- Having an open conference bridge on release night made troubleshooting easier for everyone (all application owners could call in)
- Positioning dependent deployments well ahead of the primary release lessened risk and made the overall process smoother
- It’s impossible to communicate too much
- Automation is our friend!

## What's Next?

**More of the same for the next rollout on November 12 ... with some additional major efforts!**

- Completing development and testing for all possible claim workflows
- Completing development and testing for multifactor authentication
- Expanded, targeted communications to individual schools, organizations, and populations involved in rollout

# HarvardKey Implementation Schedule

School	Number of Users	Rollout Date	Provisioning Date
 Alumni	350,000	9/22	9/22
 DCE	10,842	11/12	<i>n/a</i>
 HBS	3,678	12/3 (Proposed)	<i>n/a</i>
 FAS	20,261	11/12	11/12
 GSD	1,585	11/12	TBD
 GSE	1,922	11/12	TBD
 HKS	5,882	3/31	3/31
 HLS	3,622	11/19	3/31
 HSPH	3,926	11/12	TBD
 HDS	750	11/12	11/12
 SEAS	265	11/12	<i>n/a</i>
 HMS (including HSDM)	25,534	12/3	later in 2016
 Radcliffe	158	11/12	11/12
 CADM	9355	11/12	since July 2015

**Multifactor Authentication**  
It's Coming!

# Authentication: Who Are You?

- The process of verifying a person's identity
- Answers the question "Who are you?"
- Often confused with **authorization**, which answers the question "What are you allowed to access?"
- Usernames and passwords are the most common method of authentication
- What if someone else knows it, too?

# Authentication: The Challenges

- Computers are not all that good at definitively identifying a specific person
- People are better at it – in a social situation, we are attuned to a myriad of clues that help us determine whether someone is who they say they are
- For example ...

# Multifactor Authentication: Starts With “Who Are You?”

- Login names and passwords are the most common method of authentication, but these have significant weaknesses
- Multifactor authentication (MFA) plays a pivotal role in improving authentication
- MFA answers the question “Who are you?” with a higher degree of certainty than passwords alone
- Duo Security was selected as the platform for Harvard’s multifactor authentication solution
- Over time, Duo will replace other vendor MFA solutions currently in use at Harvard and extend protection to additional applications

# Option: Provide Additional Factors

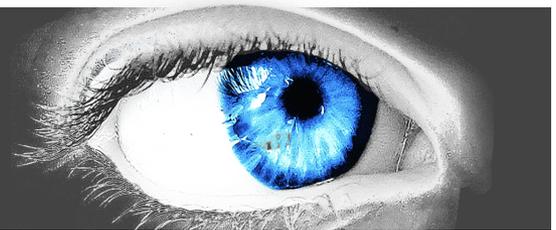
Something you know



Something you have



Something you are



## MFA in HarvardKey

- Multifactor authentication using Duo Security will be available at time of November HarvardKey rollout wave
- Participation per user is **optional** for HarvardKey web applications
- In the future, certain applications may be configured to require multifactor authentication for access (demand is high)
- Through the end of CY15, IAM is evaluating the use of MFA with VPN, Windows administration tools, and Office 365 services



### Duo Push

*The most powerful:  
one-tap authentication.*  
IPHONE AND ANDROID



### Duo Mobile

*Easily generate login passcodes  
— no cell service required.*  
IPHONE, ANDROID, PALM,  
BLACKBERRY, WINDOWS MOBILE



### Text Message

*Login passcodes  
texted to you.*  
ALL PHONES WITH SMS



### Phone Call

*Answer a phone call  
and press a button.*  
ALL PHONES

# Demo: Multifactor Authentication Using Duo

- How to set up Duo Multifactor
- Complete Log-in to an MFA protected application
- What if you forget your phone?

[Demo Application](#)



# Questions?

Learn more at [iam.harvard.edu](https://iam.harvard.edu)

Contact us at [iam@harvard.edu](mailto:iam@harvard.edu)

**Thank you!**



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