#### U.S. CITIZENSHIP AND IMMIGRATION SERVICES



# REVIEW OF THE DEFENSE ADVANCED RESEARCH PROJECTS AGENCY 2.0 SOCIAL MEDIA PILOT

Fraud Detection and National Security Directorate
June 2, 2016

DRAFT/Pre-Decisional
For Official Use Only – Law Enforcement Sensitive

#### (b)(7)(e)

### For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional

Screening Review: The Defense Advanced Research Projects Agency 2.0 Pilot
Overview In Fiscal Year (FY) 2015, the U.S. Citizenship and Immigration Services (USCIS) deployed multiple pilots – in coordination with the Department of Homeland Security (DHS) Office of Intelligence and Analysis (I&A), the Intelligence Community (IC), and the Department of Defense (DoD) – to assess the feasibility of using social media to screen applicants.
During that initial test, USCIS encountered a number of challenges and limitations in using the tool, and determined it did not meet USCIS social media screening needs at that time.  In FY 2016, USCIS initiated pilots, in coordination with DHS Science and Technology (S&T), that used the platform to screen two different population sets:
USCIS sought to determine if reviewing the social media presence of these individuals could provide useful information for adjudicating their applications, and gauge how resource intensive this screening would be.
Following a review of the results of the pilots, USCIS initiated a second pilot utilizing the revamped platform to screen a new round of refugee applicants - This paper captures the results of that pilot.
In keeping with its previous approach to the pilots, the USCIS Headquarters Fraud Detection and National Security Directorate (HQFDNS) pilot team took a two-fold approach: first, determined if any of the applicants could be linked to derogatory information that negatively impacted their eligibility or admissibility; and second, evaluated the USCIS' social media screening requirements.
In April 2016 were asked about their social media accounts during processing in During the elicitation. Contractors asked applicants about their use of Facebook, Twitter, Instagram, and YouTube, and, when available, the applicants provided user names, handles, and Web addresses also known as URLs. The data collected during this pilot was uploaded to the given to DARPA in Excel format for ingestion. Additionally, the elicited data was manually vetted and evaluated.  The results show that elicited data does not replace manual account identification processes or produce major efficiencies. United States Digital Service (USDS) evaluated the pre-vetted data and came to similar conclusions.   1

(b)(7)(e)

2

DRAFT/Pre-Decisional For Official Use Only – Law Enforcement Sensitive

 $<sup>^{1}</sup>$  See Refugee Social Media Elicitation Pilot Summary – Pre-Vetted for additional information.

#### (b)(7)(e)

### For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional

as an Entity Identification & Resolution Tool is an open-source based social media screening tool, which uses personal identifiers (e.g., ) to comb Twitter, Instagram, and the deep and dark Webs for potential user accounts. Note:  [ (and all other social media tools) is unable to comb Facebook using personal identifiers in this same way due to restrictions Facebook has placed on its Application Programming Interface (API).
Methodology  This pilot focused or applicants, predominantly divided into two sets.  • Set 1: The first set contained individuals referred to HQFDNS for nhanced review.  • Set 2: The second set contained individuals chosen for the USCIS Elicitation Pilot, led by the Department of State, USDS, and USCIS Refugee, Asylum, and International Operations Directorate (RAIO).  **This pilot focused or applicants, predominantly divided into two sets.  • Set 1: The first set contained individuals referred to HQFDNS for nhanced review.  **This pilot focused or applicants, predominantly divided into two sets.  • Set 1: The first set contained individuals referred to HQFDNS for nhanced review.  **This pilot focused or applicants, predominantly divided into two sets.  • Set 1: The first set contained individuals referred to HQFDNS for nhanced review.  **This pilot focused or applicants, predominantly divided into two sets.  • Set 1: The first set contained individuals referred to HQFDNS for nhanced review.  **This pilot focused or applicants of the USCIS Elicitation Pilot, led by the Department of State, USDS, and USCIS Refugee, Asylum, and International Operations Directorate (RAIO).  **This pilot focused or applicants or applica
<sup>2</sup> See Appendix A for a description of eac tab.
were associated with 102 Elicitation Pilot cases.  of the individuals participated in the elicitation. Those associated with the cases who did not participate in elicitation included a number of children who were not asked about social media due to their age.

3

The first set of cases enhanced review referrals) was processed through step process:	using a four-
Ingest (Step 1)	
Search (Step. 2)	l d
Review (Step 3)	
Assess (Step 4)	
In conjunction with this process, FDNS officers also manually reviewed each social account returned by hrough the High Assurance Gateway (HAG) to assist a confirmation and derogatory resolution steps, and conducted independent searched to identify other potential social media accounts. <sup>5</sup>	with the account
Due to technical issues with the DARPA tool, the second set of cases (Elicitation ingested by in time for the cases to be processed according to the methodole above. FDNS officers relied on manual searches using and the HAG to social media accounts associated with applicants within this group. Following the this ad hoc process subsequently ingested all of the Elicitation Pilot cases, which allowed FDNS to evaluate the tool's results against the process.	ogy described identify and vet e completion of
Entity Identification and Resolution Results  Mirroring the pilot's conclusions, this pilot underscored the popularias as a social media platform, and highlighted the challenges posed by name-based searches and by individuals' privacy settings in conjunction with USCIS' limited	social media
(b)(7)(e) 4	

DRAFT/Pre-Decisional For Official Use Only – Law Enforcement Sensitive

(b)(7)(e)

Combining both sets of cases, totaling applicants referred to HQFDNS for enhanced review and chosen for the Elicitation Pilot), FDNS officers determined that:
<ul> <li>individuals had confirmed social media accounts, which accounted for total accounts: Facebook Instagram Twitte and YouTube</li> <li>individuals had possible social media accounts, but due to privacy settings and platform restrictions these matches were unable to be confirmed or disproven.</li> </ul>
Note: Because cannot screen against Facebook or YouTube, FDNS officers used the HAG to manually review accounts identified for each platform, where privacy settings allowed.
Two of the social media accounts reviewed contained potentially derogatory information:
•
Overall, the tool demonstrated significant limitations identifying potential social media
accounts. vielded many results that did not relate to the applicants. also failed to identify accounts that FDNS officers were able to identify via manual methods. While
it was difficult to determine the precise source of these shortfalls, DARPA developers have acknowledged that
demic wreaged that
Enhanced Review Cases reviewed)
• identified potential accounts, all of them on Twitter. FDNS officers determined that:
o Approximatel of these accounts were No Match to the refugee applicant, based on a review of the information associated with the account, such as avatar photo, account description, account postings, or username.
o Approximately of the accounts were Potential Matches, which could not be confirmed or disproven in the absence of further identifying
information.  o Approximately of the accounts were Confirmed Matches. <sup>8</sup>
<sup>6</sup> This total includes a significant number of possible accounts returned by which were associated with child-aged derivatives. In keeping with the team's methodology for scoring accounts, they were scored as possible matches since they could not be confirmed or disproven.
<sup>7</sup> An account was considered Unknown when the officer was not able to review the account, either because they could not find it or because privacy restrictions prevented them from viewing it.
(b)(7)(e) 5

DRAFT/Pre-Decisional
For Official Use Only – Law Enforcement Sensitive

(b)(7)(e)

Elicitation Cases reviewed)			
Refugee applicants participating in the El-	icitation Pilot provided social media		
account handles, including:	· <b>—</b>		
o VouTube handles.			
o [witter handles.			
o Instagram handles.			
Facebook handles.	OC4.		
<ul> <li>As noted above only searches again</li> <li>Twitter and Instagram account handles pr</li> </ul>	nst Twitter and Instagram. Of the combined ovided via the Elicitation Pilot.		
	ional potential accounts in cases where the		
	count details, and therefore could not provide		
the account handle.			
	IS officers identified additional social media		
accounts potentially associated with the E			
, , ,	Many of these accounts were noted by		
	interview but they were unable to remember		
exact account details.			
	dentified through manual review.		
FDNS officers found that, of the	who claimed to have no social media		
accounts individuals actually did have a	accounts.		
Because the FDNS team used a similar methodol accounts for each set of cases, the overall time re. The average review time in both sets of cases at I the chart below for additional information.	quired for reviewing each case was similar.		
Enhanced Review Cases	Elicitation Pilot Cases		
Average Review Time, Per Case: 28 minutes	Average Review Time, Per Case: 25 minutes		
11/01/05/05/10/10/10/10/10/10/10/10/10/10/10/10/10/	The sage the first time, for our or the sage to the sa		
Case Review Metrics – Elicitation Method			
During the first phase of the Elicitation Pilot, app			
accounts and provide their unique Facebook user phase of the Elicitation Pilot, applicants were ver			
name, username, or user ID if they knew it. In bo	•		
name, asemame, or user 15 if they knew it. In oc	on the log-in enclusion phase and the verbal		
(b)(7)(e) 6			
DRAFT/Pre			

For Official Use Only – Law Enforcement Sensitive

elicitation phase,		ook identifiers. FDNS' manua	
Elicitation Pilot cases indicated	_	• • •	verify the accounts
elicited in both phases. Please	see the chart being	ow for additional information.	
Phase 1 Log-In Elicitati	on Results –	Phase 2 Verbal Elicita	tion Results –
Faceboo <u>k</u>		Facebook	-
Facebook Identifiers		Facebook Identifiers	
Provided to Staff		Provided to Staff	
through Log-In		through Verbal Elicitation	
Elicitation		4	
Account Identification		Account Identification	
through FDNS Social		through FDNS Social	
Media Review		Media Review	
reflects the different levels of a versus those who are not. The			
Assessment Although DARPA has improve option for semi-automated soci by FDNS officers proved to be no gains in efficiency or through	ial media screenir e more effective at	<del>-</del>	view process used
<ul> <li>Among its positive attributes,</li> <li>Provided a useful profit</li> <li>Presented an intuitive use</li> <li>Offered some capability pilot.</li> <li>Contained a tailorable of May have potential for</li> </ul>	le for each applicauser interface and y for report function (al	workflow.  although this was not te	ested during this
to review accounts that appears to match	h confidence, with t were not matched based on first and	n officers having both to find a d effectively. As part of its se l last names, or a combination rely unrelated to the applicant	arch algorithms, of initials and
9 DARPA haliayas it has identified t		an with ingostion and massly ad it	Thore are assumently in

7
DRAFT/Pre-Decisional
For Official Use Only – Law Enforcement Sensitive

<sup>&</sup>lt;sup>9</sup> DARPA believes it has identified the source of the problem with ingestion and resolved it. They are currently in the process of stress-testing the system to confirm this resolution.

- Returned zero results for Instagram, likely indicating a systemic problem with the tool's search capabilities.
- Failed to return the complete set of social media postings that were found during manual review of one of the cases for which potentially derogatory findings emerged, which could indicate issues with other accounts.
- Represented a static display of social media information, based on the time that the case was ingested and screened against social media platforms, which meant that any subsequent social media posts would not be captured in the tool.
- Could not be updated by an FDNS officer if an account was found manually.
- Did not offer an option to flag cases/accounts/social media posts for linguist review.
- Only worked in Google Chrome, making it incompatible with the HAG and forcing officers to manually enter information into Twitter for account review.
- Provided mostly indecipherable machine translation.
- Did not offer a unified case list that indicated where every case was in the workflow process.
- Returned the same accounts as potential matches to multiple people in the same family case – leading to duplicative review.

Lessons Learned		
The DARPA 2.0 Pilot continued the exploration of social media initiated by the		
Pilot and the 50-50 Pilot, conducted in conjunction with DHS Science and Technology, as well as previous pilots conducted in conjunction with DHS Intelligence and Analysis, the Intelligence Community, and the Department of Defense. The team of FDNS officers assigned to evaluate used best practices and tradecraft expertise developed through previous pilots to conduct effective and efficient social media review processes. In addition to the new lessons learned through DARPA 2.0, many of the previous lessons learned have still held true.		
1. Optimal results come from richer and more refined data sets.		
• Searching solely against people's names is inefficient due to the commonality of many names in USCIS' populations.		
•		
<ul> <li>Elicited data may assist in confirming accounts, but does not replace account identification processes or produce major efficiencies.</li> </ul>		
2. Account restrictions inhibit success.		
At the present time, FDNS officers are unable to log in to the various social media platforms and can only view what is publicly available, as set by the applicant and as available by a search in the platform for those not logged in.		
• The team would more easily and accurately be able to confirm accounts with access to the social media platforms through account creation.		
• Many of the Elicitation Pilot Facebook URLs indicated that the page was not available to the FDNS officer or presented very limited information because the officer was not logged in to Facebook. (b)(7)(e)		
8		

(b)(7)(e)

<i>3.</i> •	You have to choose the right social media platforms to search.  has access to Twitter, Instagram, and the deep and dark Web. However, only Twitter was encountered through review within the tool.
4.	More than just translations are needed for foreign language records.  This pilot led to two potentially derogatory findings, one very significant. In both cases, native Arabic language and subject matter expertise in regional culture, religion, and terrorism was needed to fully vet the information on the accounts.  provided some machine translation but was unable to translate text on images and had trouble with translating hashtags.  can only provide translation for Arabic; other language populations would have to be added to the tool for any future caseloads.
<i>5.</i> •	Based on initial analysis, many do not appear to have social media accounts of any kind.  From the analysis, it was suggested that eliciting social media accounts may assist in the social media screening process. Based on analysis in this pilot, elicitation may also encourage applicants to edit accounts, remove derogatory information, increase privacy settings, or abandon accounts altogether.  While having elicited account information assisted in confirming accounts, officers were still unable to review content in many of the elicitation cases. It is unclear if applicant privacy settings were changed as a result of the elicitation or if the accounts were always private.
6.	Timing of extracts is critical.  The data from is a spreadsheet extracted to conduct Interagency Checks. The spreadsheet should be tweaked to meet the needs of social media queries, including the addition of pictures for each applicant, and the inclusion of ALL known email addresses, aliases, related U.Sbased phone numbers and addresses, and elicited social media handles, user names, and URLs (if applicable).  Given that the data in is a static, one-time extract, officers had to review with every case to ensure they had the most up-to-date information.

(b)(7)(e)

7. HAG use has limitations.	
In order to fully evaluate an applicant's social m	nedia, officers must visit the social media
platforms through the HAG to review the conter	nt. The HAG has a number of limitations:
• It only uses the Internet Explorer Web brown	ser, which prevented FDNS officers from
using it in combination with	
• It restricts the normal copy/paste function go	oing into and out of the HAG. This requires
users to manually enter information, such as	complicated URLs, which can lead to
mistakes.	
Officers were occasionally identified as potential.	
CAPTCHA (Completely Automated Public	<del>-</del> :
Apart) images in order to proceed with search	hes.
0 77 1 4	
8. Tools matter.	
	ification process proved largely unsuccessful.
Providing elicited data to did not improduce the second did not improve the sec	
Officers found reliable results using	However public search engine
temporarily blocks out users who conduct re	
• The HAG has limitations that were not expe	rienced by the initial pilot team using DHS
S&T's open network.	
does offer business solutions that may mitigate thi	s challenge.
(h)(7)(e)	
(b)(7)(e) 10	

DRAFT/Pre-Decisional For Official Use Only – Law Enforcement Sensitive

 $\mathbf{APPENDIX} \mathbf{A} \qquad \qquad (b)(7)(e)$ 

APPENDIX A
Platform Details
has a simple user interface with four main tabs: Dashboard, Online Persona Resolution, Derogatory Resolution, and Report.
Dashboard Dashboard allows a user to search for all available cases that have been ingested by the tool.  The Dashboard also has two lists of cases: My In-Progress Cases and My Completed Cases. Any cases that have been recently manipulated will appear in the My In-Progress Cases side of the platform. <sup>12</sup>
Online Persona Resolution Once a user clicks on a case many features and presents a wealth of applicant information:  Online Persona Resolution page. This page has many features and presents a wealth of applicant information:
Due to a glitch in this tab during the pilot, FDNS officers noted that cases appeared as "in progress," even after the officers had reviewed all of the accounts and social media posts associated with the case. After FDNS informed the DARPA team, they added a "Completed Case" button that allowed officers to manually mark the case as completed.  13 FDNS officers were unable to utilize these links due to current USCIS policy and the inability to access via
Internet Explorer, which is the only search engine supported by the HAG.

(b)(7)(e) 11

DRAFT/Pre-Decisional

For Official Use Only – Law Enforcement Sensitive

# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional (b)(7)(e)**Derogatory Resolution** The Derogatory Resolution tab includes some of the same features of the Online Persona Resolution Tab as well as additional features:

(b)(7)(e) 12

DRAFT/Pre-Decisional

For Official Use Only – Law Enforcement Sensitive

(b)(7)(e)	
	Although FDNS officers did not utilize the Report tab during this pilot, it represents the final step in the workflow. It is accessed after a user scores (or "resolves") all of the social media posts attributed to the Potential Matches.  (b)(7)(e)
	Report The Report tab offers a number of features:
(b)(7)(€	
	•

The Report tab is a summary of the work completed in the prior tabs. At the present time, there is no function to export the results, or view the results in the aggregate.

USCIS/State	<b>Social Media</b>	<b>Elicitation</b>	Plan –	<b>Applicant Pilo</b>

#### **Concept of Operations**

concept of operations
Tasking
As requested by the National Security Council staff, United States Citizenship and Immigration
Services (USCIS) and the Department of State ("State"
have been asked to develop a joint Concept of Operations (CONOP) to pilot
the elicitation of social media identifiers of under consideration for
resettlement through the United States in an effort to
include this additional data element as part of the inter-agency refugee screening process.
Background 100 111 111 111 111 111 111 111 111 11
There are currently over 100 mobile social networking platforms that are active and known to
USCIS and State. Additionally, these platforms may be collectively referenced interchangeably by various terms, such as: social media, blogging, micro-blogging, photo-sharing, etc. For the
purposes of this pilot, these platforms will be collectively referred to as "social media." As the
pilot progresses and more information is learned about this capability, this set of specific social
media platforms may grow or shrink depending on utility identified. During the pilot period,
applicants will be asked to provide their username or "handle" for these various social media
platforms by the State contracted at the time of pre-
screening. These additional data elements will be captured and stored within State's
These data points will be forwarded by
State to various organizations that support the for screening and vetting.
The pilot will focus on assessing: (1) standard procedures for collection; (2) the method for dissemination of collected data to the organizations using the data for screening and vetting; (3) the value of social media screening, including whether derogatory information is obtained; and (4) the time expended on collection and screening, to inform a workload analysis in the future.
Outline of Approach
This CONOP provides the implementation details for launching this pilot, including:
<ul> <li>What is collected (i.e., specific data elements);</li> </ul>
• Who collects the information;
• Scope of the pilot; and
• Where, how, and at what point in the process will the collected data be sent for screening
What to Collect:
There are dozens of social media platforms and platforms, and the social media landscape is
constantly evolving and changing. However, for the purposes of the pilot, the will focus
UNCLASSIFIED//FOR OFFICIAL USE ONLY
DELIBERATIVE AND PREDECISIONAL DRAFT
Page 1 of 4

(b)(7)(e)

February 19, 2016

on collecting usernames and handles for a few commonly used platforms according to independent research and intelligence community reports: Facebook, Twitter, Instagram and YouTube. To aid collection, making a list of the social media platforms and symbols available to applicants during the collection process may assist in their understanding of the specific information being sought. This would give the applicant the opportunity to be presented with the symbol of the platforms requested, allowing for a visual interpretation not just a verbal prompt. However, even with this assistance, it is important to note that in many cases individuals may need additional explanation/support that will lengthen pre-screening times. For example, in most cases applicants will not know their Facebook username / identifier, and may need to either use their phone or help the caseworker locate the account on their computer in order to retrieve the information.

Social Media Networks	
Facebook	facébook
Twitter	Confirmed
Instagram	🗑 Instagram
YouTube	YouTube
-	(b)(7)(e)
which consist of non-U the collection of biographin information, and address the beginning of the  Maintains consists of non-U the collection of biographin information, and address the beginning of the  Maintains consists of non-U the collection of biographin information, and address  The collection of biographin information information of the  Provides relevant	oplied to be resettled in the United States is first prescreened by the S. Government personnel funded by State. This prescreening includes phic data, such as names, aliases, document numbers, contact sees. The benefits of having staff collect social media identifiers at admissions process include:  stency in the collection of applicant identifiers used for screening; ation is collected at the earliest point in the process, allowing social media cur simultaneously with other parts of the process; at information to the Officer for exploration at the time of the atterview; and
In addition collec	tion of the social media data at prescreening is likely to be perceived by
the applicant as simply	an intake of data, rather than a "vetting" procedure.
	e of USCIS will update any required guidance to staff to collect ocial media handles, ensuring that staff accurately captures the
	UNCLASSIFIED//FOR OFFICIAL USE ONLY

Page 2 of 4 February 19, 2016 DELIBERATIVE AND PREDECISIONAL DRAFT

information of interest and is also prepared to provide reasonable explanations justifying this collection in the event applicants ask why such information is required and how it will be used.

The collection of social media information at prescreening will extend the amount of time it takes for the
<b>Pilot Scope:</b> The pilot phase of this project will be focused on a discrete population and implemented in one processing location in order to identify best practices, understand workload implications, assess value, and ensure any appropriate modifications are made before a decision is made to apply the process to a broader population.
As such, the pilot will take place during a one week period in Based on the planned circuit ride schedule, a one week sample will yield approximately cases and approximately depending on case size. This sample will allow for a statistical representation from various nationalities to include high risk populations such as nationals. The specific timing of the pilot is dependent on when technical changes to can be completed. State estimates that these technical changes will take approximately 30 days; therefore, the pilot will likely begin at the end of Q2 or the beginning of Q3 at the latest.
Pilot Logistics: During the pilot period, the will collect the user names and handles for each applicant and enter the information into Once the information is collected, PRM will produce a report extract which includes the social media data, along with all the additional identifiers associated with the Interagency Check data fields. Note that applicant information may need to be translated so that it can be entered into which does not accept non-alphanumeric characters such as Arabic. The will keep track of how many of the cases prescreened during the week of the pilot presented social media handles in Arabic that required transliteration.
PRM will instruct the to
place all cases in this pilot on hold pending receipt of results. USCIS and State are requesting that results be provided back to USCIS and State within 30 days of receipt of data affirming whether there is a positive match to possible derogatory social media information. Cases identified as not relating to information of concern would be released for normal processing, while those with potentially derogatory information would be reviewed closely to ensure
accurate determinations are made on their ability to continued seeking admission to the United  UNCLASSIFIED//FOR OFFICIAL USE ONLY  DELIBERATIVE AND PREDECISIONAL DRAFT

Page 3 of 4 February 19, 2016

States. There may be an additional resource need for translation of matches and results. This pilot may impact the number of cases presented to USCIS for interview in Q3 if there is a delay longer than 30 days in receiving responses for this pilot.

Next S	Steps:
-	PRM will begin the technical changes toto collect the information
-	USCIS, in conjunction with DOS and its screening partners is developing guidance and
	procedures for the collection and transmission of data as well as communication of the
	results. These procedures will take into account any legal and policy issues to maintain
	consistency with the processes developed for the three previous social media
	pilots.
-	PRM and USCIS is working with screening partners to establish a process for
	transmitting data and communicating results, which for the pilot will likely be manual.
)(7)(e)	

- PRM and USCIS, in conjunction with USDS, will develop an assessment tool to record findings, develop a workload analysis, and make recommendations for changes and future expansion, as appropriate.

UNCLASSIFIED//FOR OFFICIAL USE ONLY DELIBERATIVE AND PREDECISIONAL DRAFT

#### U.S. CITIZENSHIP AND IMMIGRATION SERVICES



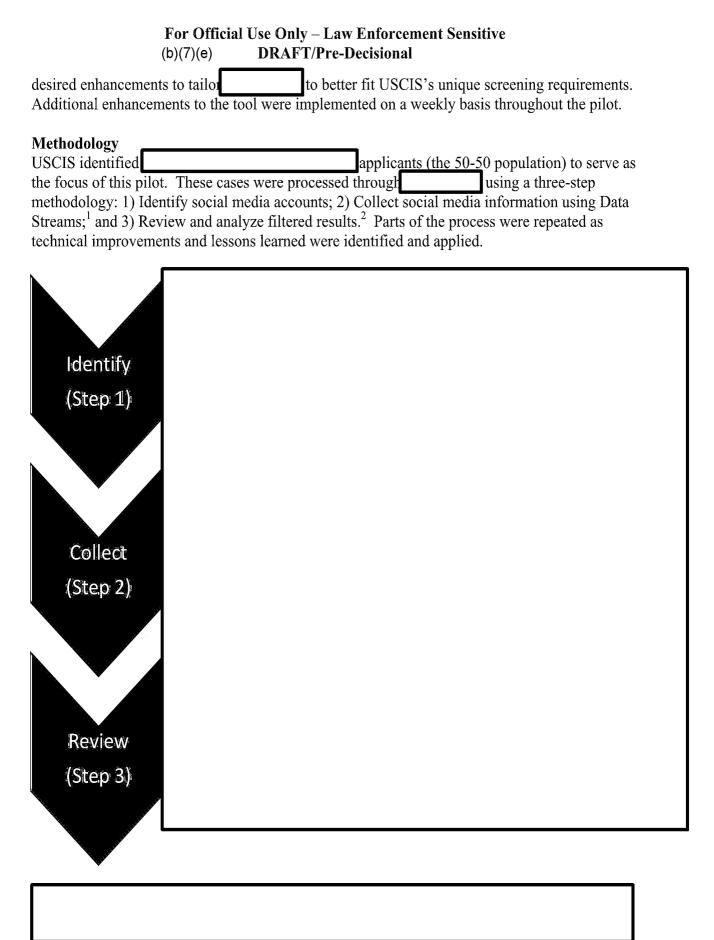


Fraud Detection & National Security Directorate 16 March 2016

(b)(7)(e)	50-50 Review:	Pilot
	CO CO ARCTACITO	2 440 0

Overview  The Department of Homeland Security (DHS) asked United States Citizenship and Immigration Services (USCIS) to examine the feasibility of using social media for screening applicants. USCIS sought to determine if reviewing the social media presence of these individuals could provide useful information for adjudicating their applications, and gauge how resource intensive this screening could be.
While USCIS had used social media in a limited capacity for the enhanced vetting of certain it does not have any experience in using it as a large scale screening tool. The agency therefore decided to approach this work as an open-ended exploration with very flexible research parameters. The team supporting this pilot utilized an adaptive approach to create, implement, and continually revise its social media screening procedures.
as a Screening Platform  Starting in December 2015, a team of USCIS personnel worked closely with DHS Science and Technology (S&T) to establish a pilot leveraging a commercially available tool for social media screening. After reviewing more than 16 different companies and their existing data analysis capabilities, S&T experts selected for the pilot. S&T worked with DHS OGC and to execute a to support joint experimentation with social media analytics.
S&T selected the social media analytics platform due to its coverage of a
Of note, due to restrictions Facebook has placed on its Application Programming Interface (API) (and many other social media tools) is unable to screen social media content posted on that platform.

2



<sup>&</sup>lt;sup>2</sup> These results are referred to in this paper as social media documents (such as a Twitter or Instagram post). Each document is reviewed to determine whether it has any linkage to a member of the 50-50 population.

(b)(7)(e)

#### Social Media Presence and Platform Utilization

In Step 1, the identification phase,	Officers closely examined	
of the 50-50 population. Officers		
determined that:  had confirme accounts.  had a likely so restrictions this match was had possible a clearly relate to the applica	unable to be confirmed. accounts that could not be count, which accounted for triffed social media accounts	to privacy settings and platform confirmed because they did not otal accounts.
In terms of actual confirmed social Facebook was the most popular platforms associated with the 50-5	atform. See the table below	* *
Confirmed	Likely but Unconfirmed	Possible but Unconfirmed
Note: As with the K-1 pilot, the 50 Facebook, due to limitations prevent	nting third parties from col	
collects on platforms that allow co	llection –	
Results In keeping with the adaptive learning screening process mu	ltiple times to	e 50-50 population through the
	was aided by the nature of	data collection and
retention capabilities -  to determine how it		a may then be re-screened using ial media documents returned.
	(b)(7)(e)	

	Round 1 (Ending 3/3/16)
Average Time, Step 1: 97 mins.	
Average Time, Step 2: 3 days	
Average Time, Step 3: 42 mins.  Median Time, Step 3: 5 mins.	
median Time, Step 3. 3 lillis.	
	Round 2
	(Ending 3/14/16)
Average Time, Step 1: 45 mins.  Average Time, Step 2: 5 days	
Average Time, Step 3: 22 mins.	
·	
Analysis of Results	
Members of the 50-50 population had	minimal presence on the U.Sbased social media
platforms accessible through	Beyond that baseline finding, each round of inform technical, policy, and programmatic decision-
naking. To help ensure consistency w	rith the approach used in the
pilot, Officers recorded the same metri a member of the 50-50 population:	cs to evaluate each social media document associated wit
i member of the 50-50 population.	
Filter Category	
Social Media Platform	

- Translation Time Required (where machine translation did not adequately translate into English)
- Confirmed Social Media Account

<ul> <li>returned documents via filters, though was determined to not have derogatory information, with this applicant,</li> <li>The average review time for each document was applicant on the hundred and eighty documents required human documents required 1 minute and 20 seconds to resolvery active on Instagram, was responsible for 141 of translation.</li> <li>The median number of documents per applicant was</li> </ul>	media account (Instagram) that h, as previously stated, this account . Of the locuments associated  proximately 1 minute, 40 seconds. a translation. On average, these olve. who was f the 180 documents requiring	
and 40 seconds to review), with the average number of documents being 24 (which would require 40 minutes to review).	Round 1: Document by Platform	]
Nearly half of the 50-50 returned no social media documents when filtered through the The remaining subjects returned documents when filtered through the vast majority of which were not related or linked to the subject. Only one of the 50-50 subjects had a confirmed social media account that contained material that matched filters.  Approximately of social media documents filtered through the came from YouTube, followed by Instagram and Twitter  Similar to the pilot results	■ YouTube ■ Instagram □ Twitter ■ Vimeo □ Flickr □ Google+ □ VK □ Web □ Flashpoint	
Round 2 The reduced set of  improvements in API matching, led to a maj- documents returned during Round 2. Key results included:  (b)(7)(e)	– coupled with or reduction in social media	]

(b)(7)(e) For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional
Lessons Learned S&T/USCIS piloted the use of for over ten weeks – testing capabilities, finding bugs, developing enhancements, learning about our applicants' use of social media, searching for derogatory information, capturing metrics, and demonstrating use cases to decision makers.  With each week, the Pilot team continued to improve its ability to utilize to screen social media,
Many of the lessons learned derived from the pilot remain applicable to the 50-50 population, including
In addition, a number of distinct lessons have been learned, which can shape what social media vetting can look like in this setting and in future scaled-up operations.
<ul> <li>The population presents unique challenges.</li> <li>Based on the results of this pilot, the population may have a minimal footprint on common U.Sbased social media platforms. Those over age 60 and those under age 10 can be expected to have little social media presence, and the remainder may be active on platforms other than those collected by</li> </ul>
elements of applicant data for identifying and confirming social media accounts.  Eliciting this information and specific social media account handles from applicants should assist the social media screening process.
(b)(7)(e)

#### (b)(7)(e)

# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional

2.	Timing of Extracts is Critical.  • The spreadsheet should be tweaked to better facilitate social media screening of including the addition of pictures for each applicant, and the inclusion of all known
	In at least two instances, Officers found new email addresses for applicants in a week or two after they had already screened the subject through timing of the extracts is critical.
3.	<ul> <li>Filtering for Relevant Information is Essential.</li> <li>Based on lessons learned in previous pilots, Officers used custom-built for the 50-50 pilot. These were refined between rounds and yielded progressively better results.</li> </ul>
	• Conducting English-language biographic searches (First Name, Last Name) proved unhelpful for both the and 50-50 pilots. Biographic-based searches can be useful, however, if performed in the applicant's native language, such as Arabic, since it returns more accurate results (The name Mohammed can be spelled dozens of ways in English, for example, but only one way in Arabic). For this pilot, that required a linguistic expert to enter each name in Arabic into the
4.	• Using the same Officer for each step of the process (Identify, Collect, and Review) is more effective and efficient versus having a different person be responsible for different elements of the process. By conducting Step 1, officers quickly become familiar with each individual's personal information (biographical information, familial relationships, etc.), which enables them to build for collecting in Step 2. In order to accurately assess the results returned as part of Step 3, an officer needs to be intimately familiar with the facts of the case.

#### **U.S. CITIZENSHIP AND IMMIGRATION SERVICES**



(b)(7)(e)

REVIEW OF ADJUSTMENT OF STATUS SOCIAL MEDIA PILOTS

(b)(7)(e) Executive Summary
USCIS examined three techniques to screet adjustments of status cases: manually searching social media sites; using a commercial application scores to select cases for manual review; and using another commercial application, to filter social media information, through DHS S&T. USCIS has determined that neither of these techniques are ready for use in large scale social media screening. While the S&T/USCIS team using has learned many significant lessons about social media and has become more efficient,
USCIS recommends continuing research
and development on and other services and tools to build the capabilities necessary for screening on the large scale envisioned and, until such capability is delivered,
for servering on the targe searce envisioned and, and such capacitity is derivered,
Other lessons learned:
<ul> <li>Manual reviews take USCIS personnel about 1.5 hours. This time is contingent on the particular platforms to be reviewed and the type of identifying information available pertaining to the subject.</li> <li>make it easier to locate social media accounts and may reduce processing time.</li> <li>Social media screening requires dedicated, and preferably on-site, language support.</li> </ul>
Close collaboration between S&T SMEs, USCIS officers and
<ul> <li>technicians led to rapid improvements in the technology and its use.</li> <li>Photos contained in government systems also helped confirm identities when photos on the social media site are available.</li> </ul>

(b)(7)(e)

2

27

Derogatory information found in other government systems can provide a more

complete picture of the appli	cant's background	and risk p	rofile.	

(b)(7)(e)

- Identifying potentially derogatory social media records is only one step in the adjudicative process.
  - USCIS must determine how evidence will be used to reach an adjudicative decision.
  - USCIS must determine how it can share the evidence that it collects with other internal DHS components, other federal agencies, and state and local law enforcement.
- Social media research on USCIS applicants falls into three discrete steps:
  - Use all available information to identify social media accounts pertaining to the applicant;
  - o Collect content from the pertinent social media platforms; and
  - Analysis the content to identify information that will impact USCIS decisions or other actions.
- S&T is a highly capable USCIS partner and can establish operationally relevant technical capabilities to address emergent requirements for operational organizations

- Effective pilot operations can be created by combining S&T and USCIS authorities
  - S&T coordinated Department level approvals for the pilot and rapidly established a Privacy Impact Assessment to complement USCIS privacy policies within several days
  - S&T made space, equipment, and expertise available to work with immigration officers and accommodate pilot operations in 2 days.

#### (b)(7)(e)

# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

#### Introduction

The Department of Homeland Security (DHS)	asked United States Citizenship and Immigration		
Services (USCIS) to examine the feasibility of	using social media to screen individuals in the		
United States who entered via	visas and who are now seeking		
adjustment to	status. USCIS sought to determine if reviewing		
the social media presence of applicants co	ould provide useful information for benefit		
adjudication and how resource intensive the screening would be.			
While USCIS had used social media in a limite it did not have any experience in usin	ed capacity for the enhanced vetting of certain g it as a large scale screening tool. The agency		
• •	open-ended exploration with very flexible research		
USCIS identified a population of approximately seeking adjustment. Each of the Adjustment of Status pilots studied part of this population. The teams supporting each pilot were granted limited autonomy to create, implement, and continually revise their own social media screening procedures.			
(b)(7 <sub>1</sub>	)(e)		

<b>Manual Reviews and</b>	at the National	<b>Benefits</b>	Center

Manual Reviews
The USCIS National Benefits Center (NBC) is a central hub for the processing and adjudication of many immigration benefit requests, which includes the screening and vetting of the applicants. USCIS took advantage of this expertise and had the NBC Fraud Detection and National Security Immigration Officers (IOs), Supervisory IOs (SIOs), and an Intelligence Research Specialist look for and review social media accounts related to of the nonimmigrants seeking adjustment to status <sup>1</sup> .
Using the High Assurance Gateway, the NBC used biographic information available in the A-file to search Facebook, Twitter, and Google for social
media accounts. NBC personnel started each search with
The
NBC only detected social media accounts for nonimmigrants.
The NBC reviewed the parts of the social media accounts visible to the general public (they did not "friend" or "direct message" anyone) and tried to find records that could potentially impact the adjustment of status application. The personnel chose a very expansive approach to
n addition, automated translation tools were not able to
translate foreign language writing in picture and video files nor spoken words in video and audio files. Only nonimmigrants that had social media accounts had potentially derogatory social media records related to national security or public safety despite the notably low threshold for being flagged.
This pilot was ended after reviews because NBC personnel were using their own personally identifiable information to create accounts to log into Facebook.
<sup>2</sup> NBC personnel relied heavily on biographic information pulled from the following forms: DS-156 (Nonimmigrant Visa Application); DS-2054 (Medical Exam for Immigrant or Refugee); DS-230 (Application for Immigrant Visa and Alien Registration); I-693 (Report of Medical Exam and Vaccination Record); and I-94 (Arrival and Departure).

(2)(1)(0)
Manual reviews require a significant time investment. USCIS staff at the NBC explored to determine if it could be used to automatically detect which cases have
social media accounts in order to avoid spending time investigating applicants with no social
media presence.
When searching for an individual, the will signal, on a scale, the confidence in having found the right person and the recentness of the data. A Reliability score of indicates high confidence; a Reliability score of indicates low confidence. Likewise, a Relevance score of indicates high probability of current actionable information. For example, returning a score would indicate successful entity resolution but out of date location information. A score of indicates high confidence at identifying information on the entity of interest and recent social media information on that person.  Cases with scores should be less likely to have social media than those with scores.
Among the cases manually reviewed by the NBC, had scores of Among these, had scores of and had scores of Among the scores, upon manual review (54%) had no detectable social media accounts and (15%) had potentially derogatory information.
• Among the scores, upon manual review (47%) had no detectable social media accounts and (11%) had potentially derogatory information.  While this is a very simple comparison, it suggested that USCIS will not be able to leverage
scores to meaningfully prioritize screening efforts without significant changes to the technology.
In January 2016, NBC reviewed an additional cases with scores. NBC also reexamined the scores from an earlier review in December 2015, this means NBC personnel manually reviewed a total cases with scores.
• Among the scores, upon manual review. (29%) had no records and (10%) had potentially derogatory information.
The additional case reviews did not establish that scores are a reliable indicator pointing toward a social media presence. Furthermore, NBC was often able to locate a social media presence for scores. The scores and scores had similar proportions of potentially derogatory information under the broad definition used at the NBC.
(b)(7)(e)

USCIS language support staff provided translations of social media records for some cases flagged as potential national security concerns. Each translation took about 3 hours<sup>4</sup>. While the translations resolved some potential issues, most were not, as shown in the table below. If USCIS officers need to determine which social media records are potential national security concerns, and which are not, they will need training and clear guidance.

Effect of Translations on Potentially Derogatory Information	(b)(7)(e)

#### **Final Steps**

The NBC will collect and review all necessary translations, work with partners in law enforcement and intelligence to determine if the social media records are still potentially derogatory, and then work with other USCIS stakeholders to determine how to resolve potentially derogatory social media records for adjudication.

#### **Lessons Learned**

• Officers took about 1.5 hours to locate and review social media accounts.

<sup>&</sup>lt;sup>4</sup> Social media records are an unusual workload for the language support staff and many documents were difficult to read due to image quality.

- Automatic foreign language translation was not sufficient.
- Additionally, USCIS language support staff spent about 3 hours on each case that needed translation.
- **Identity verification is crucial.** If USCIS cannot prove that an individual is the account owner, the evidence cannot be considered in adjudicative decisions.

	o many the or the order of the same of the
(b)(7)(e)	scores are not ready to be used to prioritize manual
	reviews. The search parameters will need significant changes in order to better identify
	social media accounts and to triage social media records for review.

- Officers will need clear guidance on what type of social media records are potentially derogatory and worth further investigation, and if determined to be derogatory, how to use that information.
- Derogatory information found in other government systems can provide a more complete picture of the applicant's background and risk profile.
- Officers will need clear guidance on how to share potential concerns with colleagues in law enforcement.

#### (b)(7)(e)

# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

<u>Pilot</u>
as a Screening Platform
Starting in December 2015, a team of USCIS Immigration Officers worked closely with DHS Science and Technology (S&T) to establish pilot operations and begin to develop baseline requirements for social media screening, utilizing currently available social media data analysis capabilities. After reviewing more than 16 different companies and capabilities, S&T experts selected for the pilot. S&T worked with DHS OGC and to execute a with social media analytics.
S&T selected the social media analytics platform due to its instant coverage of a
Data retention policies are automatically enforced and can be configured per data source or user. While other government agencies are using
Methodology After a review of an initial population of approximately adjustment applicants against resulted in results, USCIS prioritized interview-ready cases from that population for review. The cases were processed through using a three step methodology: 1) Identify social media accounts; 2) Collect social media information; and 3)

Review and analyze filtered results. Because this pilot was breaking new ground, using an advanced social media analytics capability, the methodology was under constant refinement. Parts of the process were repeated as technical improvements and lessons learned were identified and applied.

Step 1 –	Identify
L	
Step 2 _	Collect
L	
Step 3 <u>–</u>	Review
Fresently	relies on the website to generate People Search results. is currently
identifyin	g additional data sources to enhance its People Search function, including
	<u></u>

## For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

L Results		
In keepin		pproach described above, USCIS ran the
	s through the scr f refining the	eening process multiple times, primarily to gauge the This was aided by the nature of data
collection	n and retention capabilities – c	once an initial collection is performed on a given  This
-	then be re-screened using	to determine how it impacts the number of
potential	social media matches returned	
		Round 1 (Ending 1/21/16)
	age Time, Step 1: 2 hours' age Time, Step 2: 5 days	
Aver	age Time, Step 3: N/A	
		<b>Round 2</b> (Ending 2/13/16)
Aver	age Time, Step 1: N/A <sup>8</sup> age Time, Step 2: 12 hours <sup>9</sup>	

<sup>&</sup>lt;sup>6</sup> In this instance, due to a software error, the returns

<sup>7</sup> Officers were instructed to take no more than two hours for Step 1, although some cases took less time.

<sup>8</sup> Officers relied on the Step 1 results for rounds 2-4.

### For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

DRAFT/Pre-Decisional 2 26 5:15pm version				
Average Time, Step 3: 1.2 hours				
	D 10			
	Round 3 (Ending 2/13/16)			
Average Time, Step 1: N/A				
Average Time, Step 2: 24 hours				
Average Time, Step 3: N/A				

(b)(7)(e) 13

thus the Step 2 times are artificially shorter for Rounds 2-4.

is able to store results and rounds 2-4 rescreened these results using the smaller

## For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

	Round 4 (Ending 2/23/16)
A	verage Time, Step 1: N/A verage Time, Step 2: 12 hours verage Time, Step 3: 68 mins Median Time, Step 3: 28 mins
he d  Office  ritica	d 4 – In Depth ramatic reduction in social media matches returned during Round 4 enabled Immigration ers to essentially redo the Step 3 process for the while capturing a number of all metrics to aid in evaluating the pilot's accomplishments. For each social media match, gration Officers recorded the following:
•	Filter Category
•	Social Media Platform
•	Translation Time Required (where machine translation did not adequately translate into English) Confirmed Social Media Account
oun	d 4 identified a number of key results:
•	No derogatory information was attributed to a applicant or petitioner.  Only one applicant's social media account returned matches via filter.  These matches were linked to innocuous Instagram posts that featured common words
•	The average review time per potential match was two minutes.  Only matches required human translation. On average, these matches required 1.5 minutes to resolve. One match, however, led to a social media account possibly linked to a applicant, which contained numerous videos that required approximately two hours of translation.  The median number of potential matches per applicant was 14 (which would require 28 minutes to review), with the highest number of potential matches being 198 (which

(b)(7)(e)

# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

Round 4 – Social Media Platforms (b)(7)(e)

Facebook, due to its cor	he largest group, came fi	nt third parti	_	_	
only collection -	ts on platforms that allow	<u> </u>	Social N	Tedia Potential	Matches
confection -					1
to identify the applicants and t manually reviewed each allowed. By clicking or Immigration Officers we other photos, albums, ar derogatory information applicants through this r	each potential match ret	settings count, eview ntially f the urned by			□ YouTube  ■ Instagram  □ Flickr  □ Twitter  ■ Google+  □ Pastebin  □ VK  □ Web
	ction process, Immigrati				
	ly examined the overall (). Approximately of		-		nd their
-	A social media account is	`	_		
Sou	ial Media Platform Accou	nte		identifiers the	at match
Confirmed	Likely		sible	an applicant'	s data,
Some applicants have profile pictures					
	Figure 1			of themselve facilitates thi	
•	stock images or landscap		profile pictur		
	or their petitioners, had d by using applicant info ings or platform restriction on of the images.	ormation		•	

# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

or more of the or their petitioners, had possible social media accounts. Possible social media accounts are those where the applicant's biographic information matches that of a social media account, but there are no other data points available to make an informed determination.
of the had no accounts identified by this process. The applicants may not use social media, or the applicant may have such a common name that confident identification of the account is too labor-intensive. Privacy settings set by the applicant may also impact whether social media accounts can be identified or confirmed. <sup>11</sup>
Lessons Learned
The S&T/USCIS Pilot Cell has been using for nine weeks – testing capabilities, finding bugs, developing enhancements, learning about our applicants' use of social media, searching for derogatory information, capturing metrics, and demonstrating use cases to decision makers.
During this time, a number of significant lessons have been learned, which can shape what social media vetting can look like in this setting and in future scaled-up operations.
<ul> <li>Optimal results come from richer and more refined data sets.</li> <li>U.S. government metrics and vernacular, such as a receipt number, are not useful for either identifying social media accounts, nor are they discussed on social media.</li> <li>Common names and famous names are noisy.</li> </ul>
<ul> <li>Richer data sets upfront reduce officer "swivel chairing" between U.S.</li> <li>Government holdings and commercial databases for additional leads to identify accounts – expediting Step 1 in the Babel Street process.</li> </ul>
• Filter management is key.  • This pilot began with a data call to USCIS components for were collected, provided to S&T and uploaded into . The result was 2.4 million potential matches to the applicant pool, and it bogged down the accounts, exceeding the initial thresholds established for the pilot.

(b)(7)(e)

16

Restrictions on the Facebook API may have also affected the officers' ability to confirm accounts.

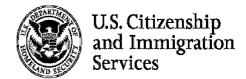
# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

	0	
	0	should aim to reduce potential matches and identify
		truly derogatory information.
	0	Choosing that
		generate false positive results (e.g. social media matches with no actionable
		information or relevance to the applicant) may cause to miss truly
		derogatory information.
	0	New filters with relevant tailored to the
		target population's socio-cultural characteristics, will need to be tested and
		analyzed.
•	Accou	nt restrictions inhibit success.
	0	At the present time, officers are unable to log-in to the various social media
		platforms, and can only see what is 1) public, as set by the applicant and 2)
		public, as available by a search in the platform.
	0	The team will be able to more easily and accurately confirm accounts with access
		to the social media platforms.
•	You h	ave to choose the right social media platforms to search.
	0	has API feeds to social media sites plus deep and dark web.
	0	The team decided in the beginning to select ALL available platforms to screen our
		applicant information against.
	0	
	0	Based on this pilot, Facebook is potentially a rich source of social media for
		USCIS applicants. Barring changes to Facebook's API restriction, however,
		and similar social media analyzers will not be able to provide an
		automated data collection capability for Facebook accounts.
•	More	than just translations are needed for foreign language records.
	0	While has machine translation capabilities, at times the translations
		are imperfect and require human review. Subject matter experts who can
		comprehend the essence of videos, postings, text, and other various media, and
		who understand cultural, religious, and colloquial terminology, must be available
		in either a reach-back capacity or onsite to facilitate this work.
	0	Having said that, only of the potential matches required additional human
		translation, and only one required extensive review.

# For Official Use Only – Law Enforcement Sensitive DRAFT/Pre-Decisional 2 26 5:15pm version

L	may help reduce noise and find truly derogatory records.
	1000145.
Close	Collaboration with technicians rapidly improved capabilities.
0	The USCIS team has been in constant contact with S&T experts and
	technicians to develop new capabilities related to our unique mission and
	evolving use case. Officers have helped to develop "user stories" and
	has conducted testing and implemented changes to their platform. S&T
•	translated technical requirements and needs to for implementation.
	This type of close collaboration in an open research environment is the main
	reason for the rapid reduction in social media record matches.
0	S&T is working through automated interface standards so that
	other social media tools can interface directly with USCIS system. This work is
	advanced and will accelerate potential future implementation of automation for
	screening and vetting workflows.
0	The collaboration resulted in 17 major fixes and enhancements to
	and another 23 are in progress.

(b)(7)(e)



**September 16, 2016** 

Briefing Paper/Way Forward –	Social Media Screening
Source: U.S. Citizenship and Immigration Services' (USC Directorate (FDNS) and Refugee, Asylum and Internatio	
Problem or Issue:  A case of interest has arisen related to and social high-level overview of the case, FDNS social media screen from this case. It also charts the way forward with FDNS learned, taking into account USCIS resource and other contracts.	social media screening based on these lessons

(b)(7)(e)	For Official Use Only – Law Enforcement Sensitive
• USCIS/FDI	NS Social Media Timeline: From late 2014 through June 2016, USCIS/FDNS participated
	programs with interagency partners on the proof of concept of leveraging social media in
0	On July 10, 2016, USCIS/FDNS stood up a Social Media Branch to leverage the work of the pilots and incorporate social media checks into routine refugee screening for certain limited populations identified as high risk.
0	Focus of Screening: RAIO and FDNS have collaborated to provide for enhanced review of certain cases as well as who have had possible national security concerns identified during or after initial interview.
<b>Challenges:</b>	

Finding an account when the applicant does not provide all selectors is an intensely manual process, not well-suited to screening large volumes of applicants. A case like this one would have required

For Official Use Only – Law Enforcement Sensitive

(b)(7)(e)	
ł	Adding processes like this to the current screening review would likely move processing time up to an estimated three to four hours per case rather than the current rate of one hour per case.
3.	Restrictions on USCIS's use of social media impact our ability to search certain social media sites.  USCIS uses a number of different ways to search relevant social media sites, but some sites block otherwise publicly available, relevant information from investigators, unless the investigator has an account. Facebook, in particular, only shows a limited amount of information and makes searches more difficult if the user is not logged into a Facebook account when searching.
(b)(7)(e)	
(b)(7)(e)	

4. <u>Current social media review process is time- and labor-intensive</u>. While USCIS relies on an automated tool to identify social media activity, reviewing the social media information is a very manual process, even with the automated tool in use, and is different from most other screening conducted on immigrants. USCIS's other screening processes (i.e., those unrelated to social media) rely on records created by law enforcement or intelligence community partners in databases searchable on identifiers provided by applicants. Each record in those systems is created with the intention of notifying others in the law enforcement or screening communities (including USCIS) of particular activities or other issues of concern. Social media information is created for very different purposes. When a user creates a Facebook post or Twitter message, it almost never takes a form naturally suited to screening purposes. As such, all information uncovered must be manually reviewed to determine how, if at all, it could impact adjudication.

This manual review renders the social media review process a relatively time-intensive operation in terms of staff hours required to conduct reviews, and an expensive one in terms of salary and related costs. Based on current staffing projections for the immigration officers conducting the review, as well as the leadership and support staff required to support the team, the personnel costs are, on average, approximately \$48.70 per person screened in social media. This includes costs associated with training and overhead, but does not include licensing costs for the automated software. If

<sup>1</sup> By way of comparison, the average cost for an FBI Name Check is \$18/person, and an FBI Fingerprint Check currently costs \$12.75/check. As of October 1, 2016, FBI Fingerprint Check costs will decrease to \$10/check. 
<sup>2</sup> FDNS' Social Media Branch comprises approximately twenty full time employees, including Immigration Officers, Supervisors, Intelligence Research Specialists, and Management and Program Analysts. The annual yearly cost is approximately \$3,000,000.

### $\mbox{(b)(7)(e)} \\ \mbox{For Official Use Only} - \mbox{Law Enforcement Sensitive} \\$

additional manual processes were added to the social media check, throughput would go down, and the costs of screening per person would rise.

Options for Process and Systems Improvements:	
1.	
2.	
3.	
4.	
Proposed Populations for Expansion: <sup>3</sup>	
<sup>3</sup> Note that we are currently operating under the assumption that we will have an admissions target of inclusive of approximately next year.	

For Official Use Only – Law Enforcement Sensitive

Management and Program Analysts 1:12

Intelligence Research Specialiasts 1:12 Supervisory Immigration Officers 1:8

 $<sup>^4</sup>$  USCIS estimates an need for additional support staff at the following ratios to screeners:

### For Official Use Only – Law Enforcement Sensitive

Recommendation:		
(b)(7)(e)		
(6)(1)(6)		



# Fraud Detection and National Security USCIS Social Media Update

Fraud Detection & National Security Directorate January 18, 2017

# USCIS Pilots

•		•	ng social media revi	ew for
	casework si	nce FY2015		
	– Pilot 1:	Denied	Cases	
	– Pilot 2:	Approved or D	enied	Cases
	– Pilot 3:	Pending	Cases	
	– Pilot 4:	and	Applican	ts
	– Pilot 5:	Primarily	Applicants	S
	<ul><li>Operation</li></ul>	al: Over	Enhanced Revie	w and and
	CARF	RP Cases		

Pilot	Palor AY	D30+115	Jan=16	<b>Fab±16</b>	Mar=16	App-16	May-16	Jun=16	Jui+16	AUG-116	Sep+16	00H16	Present
Pilot 1									Assistar	nce: I&A, IC,	and/or DC	D	
Pilot 2									Assistar	nce: I&A, IC,	and/or DC	D	
Pilot 3									Assistar	ice: DARPA			
Pilot 4						I.			Assistar	nce: I&A, S&	T, Commer	cial Tool	
Pilot 5									Assistar	ice: DARPA			
Operational									Assistar	rce: I&A, S&	T, Commei	cial Tool	

(b)(7)(e)

# USCIS Progress on Social Media Task Force Concept of Operations

	Category of Applicant	Total Estimated Number of Individuals Per Phase (every 2 weeks, unless specified)	<u>Original Launch</u> <u>Date<sup>1</sup></u>	Current Status
Phase 1			December 2015	<b>√</b> Completed
Phase 2			April 2016	<b>√</b> Completed
Phase 3			July 2016	Completed
Phase 4			August 2016 (was contingent on launch of COE to support)  Actual Launch: April 2017	##J, April 2017
Phase 5			(capability developed within USCIS to implement)  TBD (contingent on launch of COE or developed capacity within USCIS)	Future Capability
Phase 6			TBD (contingent on launch of COE or developed capacity within USCIS)	iilliii, Future Capability

 $<sup>^{\</sup>rm 1}$  Launch dates that are TBD are dependent on the implementation and experience with earlier phases.

(b)(7)(e) Unclassified // FOUO (For Official Use Only)

<sup>&</sup>lt;sup>2</sup> Estimate takes into acco<u>unt surge processing in Amm</u>an, Jordan.

<sup>&</sup>lt;sup>8</sup> Sample is approximatel expected in a one-week period.

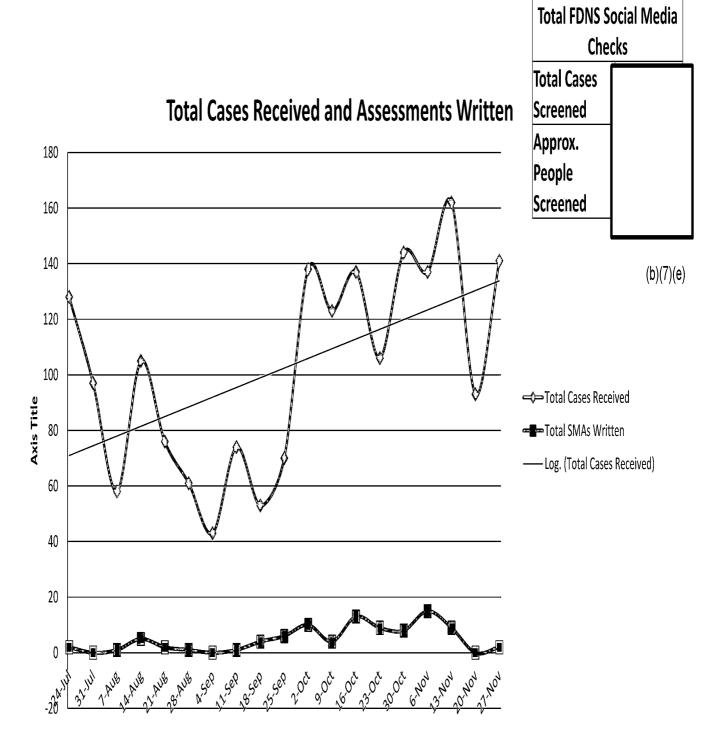
The Controlled Application review and resonator Program (CARRP) is an additional review process USCIS conducts on cases for which national security concerns are raised.

Takes every two weeks anticipated.

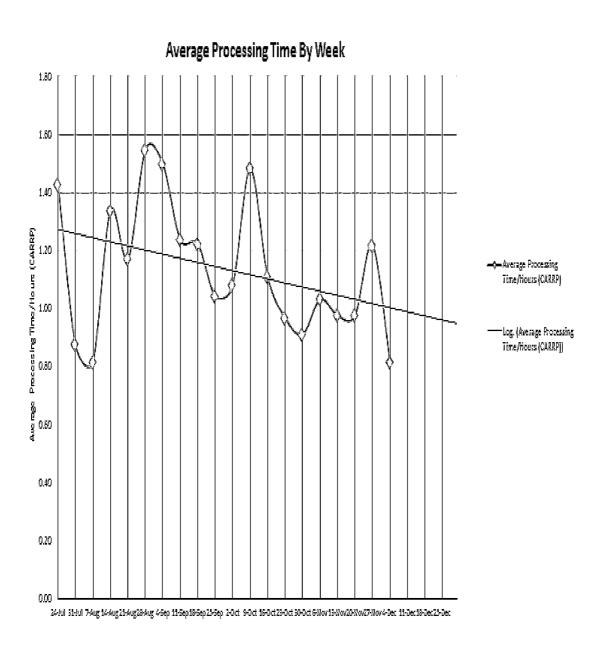
Estimates based on historical percentages applied to FY 2016 totals. Does NOT assume any overlap among these individuals and the enhanced review/CARRP cases.

<sup>&</sup>lt;sup>7</sup> This launch date assumed the Center of Excellence was established and operational in August 2016.

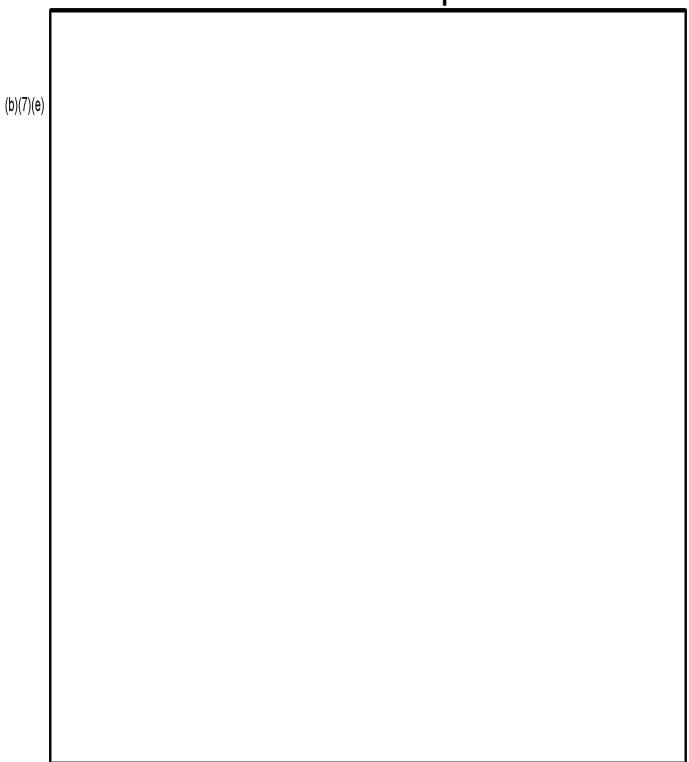
# Increased Casework



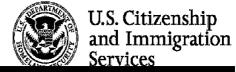
# Team Performance



# Three Examples



Updated on: March 2, 2017



### USCIS Social Media & Vetting: Overview and Efforts to Date

Accomplishments
USCIS has implemented a suite of social media checks for certain populations, establishing a team within USCIS's Fraud Detection and National Security Directorate to oversee and conduct these checks.
USCIS has worked with DHS Intelligence and Analysis (I&A) and DHS Science and Technology (S&T), as well as partners in the law enforcement, defense, and Intelligence Community (IC) to develop tools and techniques for social media research, and continues to improve use of social media for screening and vetting applicants.
Pilots
Pilot 1: During Q1 of FY15, USCIS, in collaboration with DHS I&A, the Intelligence Community (IC), and/or the Department of Defense (DOD), implemented social media exploitation in cases.
Pilot 2: Following the first sample of cases, USCIS sent an additional batch of cases through DHS I&A, the IC, and/or DOD.
Projects Agency (DARPA) to screen against Instagram, Twitter, and deep and dark web. USCIS screened cases (approximately identified for enhanced screening against the DARPA tool in order to assess its capabilities. FDNS encountered a number of challenges, limitations, and inefficiencies with the tool and concluded that it does not meet USCIS needs for social media screening.
Pilots 1, 2, and 3 Results
Although applicant data was successfully used to identify some applicants' social media accounts, the

(b)(7)(e)

For Official Use Only/Internal Use Only | Draft and Deliberative

# For Official Use Only/Internal Use Only| Draft and Deliberative (b)(7)(e)

Pilot: Beginning in December 2015, USCIS conducted social media research or cases
in three ways:  1. Approximately cases o applicants for adjustment of status were reviewed using the commercial social media screening applications under an ICE contract.  O The same cases were initially screened with the support of DHS/S&T using of these cases that were pending an interview with a USCIS Field Office were subsequently prioritized for analyst review and evaluation.  2. Staff at the USCIS National Benefits Center manually searched and reviewed Twitter, Facebook, and Google on adjustment applicants.  • As of June 22, 2016, no adjustment of status application has been denied for social media information.  • The results of this vetting, including the review, the review, and the manual review, were compiled in a final report that identified a number of lessons learned and detailed the challenges in utilizing social media for screening purposes.
Pilot 4: USCIS ran data from applicants and their family members through a commercial application called n early January 2016, to screen for social media. The pilot found that this group of individuals had minimal presence on U.Sbased social media platforms accessible through or other social media applications). An analysis of this pilot identified a number of lessons learned.
<ul> <li>Pilot 5: In April 2016, USCIS began another pilot with the DARPA social media screening tool to vet applicants, drawn predominantly from the populations. As of June 22, 2016, no applications have been denied solely based on social media information found during the pilot.</li> <li>Although the tool was improved from the previous iteration, USCIS determined DARPA 2.0 was not a viable option for semi-automated social media screening. An analysis of this pilot identified a number of lessons learned.</li> </ul>
Operational Enhancement – Semi-Automated Social Media Review: Beginning in FY16 Q1, FDNS instituted a manual Facebook search and review for cases referred for Enhanced Review. FDNS is continuing this check for all cases referred for Enhanced Review. On August 1 <sup>st</sup> , 2016, USCIS began conducting semi-automated checks of a number of social media sites for Enhanced Review cases and cases with national security concerns (CARRP cases). Since January 2017, USCIS has also conducted social media checks on all applicants being interviewed in regardless of country of origin. USCIS has screened over total applicants with these social media checks. While at this time, no applications have been denied solely based on social media information found during ongoing social media review, USCIS
Additional Populations: In January 2017, USCIS began exploring the expansion of social media checks to additional populations. FDNS is working with counterparts in the Refugee, Asylum, and International Operations Directorate to expand social media checks to applicants, beginning with those

### For Official Use Only/Internal Use Only| Draft and Deliberative

individuals from certain countries of concern. Additionally, FDNS is working to expand social media vetting to certain cases with national security concerns. Each of these programs are planned to be in place by Q3 2017.

### **Tool-Specific Limitations**

•	Despite the use of Twitter, Instagram, and deep/dark web data, additional foreign and domestic social media platforms (e.g., Facebook) are not available in the DARPA tool.
•	offers over different social media and dark/deep web searches, including several but can return large volumes of data that has to be manually reviewed to determine whether the information relates to the applicant or not.
•	For the DARPA tool, searches can only be conducted based on the applicant. It is able to search related to an applicant and has some capability to identify social media account information based on the
•	appears to mitigate some (but not nearly all) of the language and social media platform limitations, but is not currently capable of analyzing or producing reports on the results it generates.
•	No commercial tool is currently able to provide meaningful automated content from Facebook posts, requiring Facebook checks to be conducted manually.
<u>Cł</u>	nallenges
•	Even when an automated tool is used to search, all social media screening and vetting requires a manual review of information which is labor intensive and time consuming. Officers have to review information first to assess whether the social media accounts identified by the tool are associated with the applicant. If the officer determines the social media accounts belong to the applicant, the officer must then review the content of the social media postings to determine if any national security indicators are present.
•	Most of the information derived from social media sites is written in languages other than English and requires translation support. has some translation capabilities, and S&T is currently working with the for additional ad hoc translation support.
•	
•	Policy and guidelines on the use of social media in adjudications is needed as well as policy and guidelines to define what constitutes a national security indicator in the context of social media.

### **Preliminary Findings**

• Analysis and evaluation of various tools is ongoing. However, tools and processes employed to date need to be improved in order to ensure a viable means of screening immigration applicants' social

For Official Use Only/Internal Use Only | Draft and Deliberative (b)(7)(e)

### For Official Use Only/Internal Use Only| Draft and Deliberative

)(e) <sup>31g111</sup>	ficant manual factor, even	for the semi-automated check		
Acce	ss to social media for imm	nigration purposes is still new	, with best practices under	developmen
•				



### **Social Media**

(b)(7)(e)

USCIS use of social media is governed by DHS Directive 110-01, "Privacy Policy for

### **Background**

Operational Use of Social Media." This policy requires USCIS to receive approval from the
DHS Privacy Office regarding the privacy implications of any planned operational use of social
media. USCIS use of social media also requires authorization from senior agency leadership.
A policy memo was signed by USCIS leadership on April 7, 2015, authorizing a small group of
USCIS Fraud Detection and National Security Directorate (FDNS) officers to conduct social
media research in the vetting context. In early FY16, a team of FDNS officers, who
received specialized training in social media use, began conducting manual Facebook reviews
for certain cases referred for enhanced review. FDNS currently conducts routine
social media screening for certain applicants.
approunts.
FDNS, in collaboration with the USCIS Refugee, Asylum, and International Operations
Directorate (RAIO) and the USCIS Field Operations Directorate (FOD), and DHS partners,
including Science and Technology (S&T) and the Office of Intelligence and Analysis (I&A), has
conducted several pilots leveraging the use of social media in the screening and vetting process
for certain and certain applicants for adjustment of status. Pilot efforts to date include:
• Pilot 1: During Q1 of FY15, USCIS, in collaboration with DHS I&A, the
Intelligence Community, and the Department of Defense (DOD), implemented social
media review on denied cases.
• Pilot 2: Following the first sample of cases, USCIS sent an additional batch of
approved and denied cases through DHS I&A, the Intelligence
Community, and DOD.
• Pilot 3: USCIS tested the use of a social media tool created by the Defense
Advanced Research Projects Agency (DARPA) to screen against Instagram, Twitter, and
the deep and dark webs. USCIS screened pending FY16 Q1 cases
(approximatel identified for enhanced screening through the DARPA
tool in order to assess its capabilities. FDNS encountered a number of challenges,
limitations, and inefficiencies with the tool and concluded that it did not meet USCIS
needs for social media screening.
o Pilots 1, 2, and 3 Results: Although applicant data was successfully used
to identify some applicants' social media accounts, the information in the
accounts did not yield clear, articulable links to national security concerns, even
for those applicants who were found to pose a potential national security threat
based on other security screening results.
Pilot: In January 2016, USCIS conducted social media research on certain
adjustment cases in three ways:

Warning! This document, along with any attachments, contains NON-PUBLIC INFORMATION exempt from release to the public by federal law. It may contain confidential, legally privileged, proprietary or deliberative process inter-agency/intra-agency material. You are hereby notified that any dissemination, copying, or further distribution of this information to unauthorized individuals (including unauthorized members of the President elect Transition Team) is strictly prohibited.

Unauthorized disclosure or release of this information may result in loss of access to information, and civil and/or criminal fines-and penalties.

(b)(7)(e) 1/4



	o Approximately cases of applicants for adjustment of status were	
	reviewed using the commercial social media screening applications	
	under an ICE contract.	
	o The same cases were initially screened with the support of DHS S&T using	
	a commercial application. of these cases that were	
	pending an interview with a USCIS Field Office were subsequently prioritized for	
	analyst review and evaluation.	
	o Staff at the USCIS National Benefits Center manually searched and reviewed	
	Twitter, Facebook, and Google on adjustment applicants.	
	■ The results of this vetting, including the review, the Babel	
	Street review, and the manual review, were compiled in a final report that	
	identified a number of lessons learned and detailed the challenges in	
	<u>utilizi</u> ng social media for screening purposes.	
•	0-50 Pilo Pilot 4: In January 2016, in collaboration with DHS S&T, USCIS	
	an data from	
	to review social media. The pilot found that this group of	
	adividuals had minimal presence on U.Sbased social media platforms accessible	
	or other social media applications). No derogatory information	
	ras identified or associated with the pilot data set.	
	o The results of this vetting were compiled in a final report that identified a number	
	of lessons learned and detailed the challenges in utilizing social media for	
	screening purposes.	
• ]	ARPA 2.0 Pilot Pilot 5: In April 20 <u>16, USCIS conducted</u> another pilot with	
	ne DARPA social media screening tool to verapplicants, drawn	
	redominantly from the Although the tool was improved from the	
-	revious iteration, USCIS determined DARPA 2.0 did not meet USCIS needs and was	
-	ot a viable option for semi-automated social media screening.	
	o The results of this vetting were compiled in a final report that identified a number	
	of lessons learned and detailed the challenges in utilizing social media for	
	screening purposes.	
	Two of the social media accounts reviewed contained potentially derogatory	
	information.	
		_
	(b)(7)(e)	

Warning! This document, along with any attachments, contains NON PUBLIC INFORMATION exempt from release to the public by federal law. It may contain confidential, legally privileged, proprietary or deliberative process inter-agency/intraagency material. You are hereby notified that any dissemination, copying, or further distribution of this information to unauthorized individuals (including unauthorized members of the President-elect Transition Team) is strictly prohibited. Unauthorized disclosure or release of this information may result in loss of access to information, and civil and/or criminal fines and penalties.



#### **Current Status**

In accordance with the Social	Media Expansion Plan for Refuge	es Concept of Operations
(CONOPS), FDNS continues	to deploy a risk-based phased app	roach for the expansion of social
media review for Be	eginning in FY16 Q1, FDNS institu	uted a manual Facebook search
and review for	cases referred for enhanced review	w. On August 1 <u>, 2016, USCIS</u>
began conducting semi-auton	nated checks of a number of social	media sites for
cases referred for enhanced re	eview and	cases with national security
concerns.		
As of November 4, 2016, US	C <u>IS has conducted so</u> cial media sc	reening on approximately
cases or approximate	y At this time,	no applications have
been denied solely based on s	ocial media information.	

FDNS, a part of the DHS Social Media Task Force, continues to collaborate with partner components and agencies to explore semi-automated solutions. DHS S&T is currently undergoing an acquisition process to evaluate a number of commercially-available tools to determine if any meet the operational requirements of USCIS and other DHS components that possess a need to access social media information for lawful purposes. USCIS, for both manual searches and semi-automated searches currently in operation, only seeks access to publically available social media information for the purposes of screening and vetting, in accordance with privacy, civil rights, and civil liberties oversight.

As of November 4, 2016, no immigration benefits have been denied solely or primarily because of information uncovered through social media vetting. In a small number of cases, information discovered through social media screening had limited impact on the processing of those cases – specifically in developing additional lines of inquiry. In cases of benefit denial, the denial was based on information found outside of social media, such as through routine security and background checks, or uncovered during an interview.

### Challenges

•	The process of social media screening and vetting necessitates a labor intensive, manual review in which officers must first attempt to assess whether the content relates to an
	individual with a pending immigration benefit request. Even if information that
	definitively relates to such an individual is found.
	but may be helpful in
	developing additional lines of inquiry when adjudicating the benefit request.
•	There are several technical challenges to semi-automated use and access of social media

• There are several technical challenges to semi-automated use and access of social media that DHS is working to overcome, such as employing and collating social media data for large numbers of applicants; efficiently automating search algorithms; automated

Warning! This document, along with any attachments, contains NON-PUBLIC INFORMATION exempt from release to the public by federal law. It may contain confidential, legally privileged, proprietary or deliberative process inter-agency/intra-agency material. You are hereby notified that any dissemination, copying, or further distribution of this information to unauthorized individuals (including unauthorized members of the President-elect Transition Team) is strictly prohibited. Unauthorized disclosure or release of this information may result in loss of access to information, and civil and/or criminal fines—and penaltics.

(b)(7)(e) 3/4



language translation; and resolving a person's online identity. In addition, there are further technical limitations. Specifically, USCIS cannot access messages in peer-to-peer messaging systems or the back-end data of social media platforms, nor does it seek to access this information.

- The social media review that FDNS currently conducts is more limited than that conducted by other components, because FDNS does not have the same authorities as other components.
- Having FDNS personnel dedicated to mass social media screening diverts them away from conducting the more targeted enhanced vetting they are well trained and equipped to do. USCIS is working now on developing greater social media vetting capability on that kind of case-by-case referral basis.
- Content obtained from social media is often in languages other than English and requires translation support.

#### **Milestones**

Future milestones related to the Social Media include:

•	FDNS will continue a risk-based expansion of social media screening. FDNS is currently
	working to expand social media screening to all

• A pilot plan, coordinated by the Office of Policy and Strategy, has been drafted and presented to USCIS senior leadership, which will expand use of social media for referral based vetting more broadly across USCIS. This pilot plan is undergoing final review by senior leadership.

#### **Points of Contact**

Prepared by:

Kevin Quinn, FDNS, Case Analysis and Vetting Division Chief, kevin.t.quinn@uscis.dhs.gov, 202-272-8414

Tara Matthews, FDNS, Immigration Officer, tara.matthews@uscis.dhs.gov, 202-272-9329

(b)(7)(e)

Warning! This document, along with any attachments, contains NON-PUBLIC INFORMATION exempt from release to the public by federal law. It may contain confidential, legally privileged, proprietary or deliberative process inter-agency/intra-agency material. You are hereby notified that any dissemination, copying, or further distribution of this information to unauthorized individuals (including unauthorized members of the President elect Transition Team) is strictly prohibited. Unauthorized disclosure or release of this information may result in loss of access to information, and civil and/or criminal fines—and penalties.