



APR 10 2015

MEMORANDUM FOR Mei Ngan

From:

Charles H. Romine *Charles H. Romine*  
Director, Information Technology Laboratory

Subject: Determination for ITL Project # ITL-0002, entitled, "Tattoo Recognition Technology Research and Evaluations with Federal Bureau of Investigation (FBI) Operationally Collected Tattoo Data"

I have reviewed the project and determined that the research did not involve human subjects as defined in Department of Commerce Regulations, 15 CFR 27, also known as the Common Rule (45 CFR 46, Subpart A), for the Protection of Human Subjects.

This determination also concluded that this research using coded data met the conditions outlined by the Office of Human Research Protections (OHRP), DHHS guidance. NIST follows OHRP guidance.

This determination was based on reviewing the following documents:

1. ITL-0002, NIST Human Subjects Research Determination Form of March 24, 2015, with the following attachments:
  1. ITL-0002 NIST Human Subjects Research Determination Form (March 18, 2015, revised dated 3/20/2015)
  2. Project Schematic (dated 3/20/2015)
  3. Government Furnished Information Agreement dated February 24, 2014 and signed April 3, 2014
  4. Shelley Renee Dolf Assistant General Counsel Federal Bureau of Investigation email dated June 24, 2013 citing FBI BCOE Authorities
  5. Eric Phillips, FBI/BCOE email dated March 18, 2015, noting no codes shared with NIST

I understand that the request for a determination was submitted after the research project was conducted because the human subject's determination was not known to be necessary for the proposed use of data. Based on the review of the manuscript for this work and supporting documentation, it was determined that this work would have been designated as research that does not involve human subjects if the determination would have been made prior to the research.

Please be aware that determinations for any future work involving humans, their data, or specimens, should be made prior to start of the work.

If you have any questions, please contact Mr. James St. Pierre.

cc: Shahram Orandi, Acting Leader, Image Group, Information Access Division  
Barbara Guttman, Acting Chief, Information Access Division  
James St. Pierre, Deputy Director, ITL  
Jason Boehm, Human Subject Review Group

**NIST Human Subjects Research Determination Form**  
**To Determine Whether Proposed Work Meets the Definition of**  
**Research with Human Subjects**

**Instructions:**

If proposed work/project involves (1) humans, (2) biological specimens from humans, or (3) data or information about humans, use this form to determine if your work meets the definition of research with human subjects. This is the first step in determining whether the regulations for protecting human subjects apply to proposed work.

Submitting this form implies that you obtained endorsement by your management to pursue this determination for the proposed work/project.

**1. NIST Project Lead (the Investigator accountable for the project)**

Name	Mei Ngan
Title	Computer Scientist
Building/Office	225/A210
Division/Group	Information Access Division/Image Group

**2. Type of Work:**

NIST work

Contract/Grant to non-NIST party

**3. Title of Proposed Work:** *Tattoo Recognition Technology Research and Evaluations with Federal Bureau of Investigation (FBI) Operationally Collected Tattoo Data*

**4. Description of Proposed Work:**

NIST has been conducting evaluations of biometric and related algorithms and technology standardization for many years as part of its measurement science and standards mission including mandates from the USA PATRIOT Act and Enhanced Border Security and VISA Entry Reform Act. Samples are essential for conducting research in algorithmic performance of tattoo recognition technology using operationally realistic tattoo data. NIST research activities for this project are limited to algorithm research and technology evaluation and standardization and do not include any NIST conducted or supported collection of tattoo images from human subjects (**Attachment 1**).

NIST is not funding or directly collecting any tattoo images from subjects. FBI collected tattoo images of encountered subjects for non-research purposes under the authority to carrying out their agency mission. The FBI will provide coded tattoo data, including the numbers/codes assigned to subjects as reference annotations, to NIST under Government Furnished Information (GFI) Agreement (**Attachment 2**) for the evaluation of tattoo recognition technologies as described in the associated attachments. NIST will never receive the key linking each subject's personally identifiable information to this tattoo data. The tattoo images are not well suited for individual identification; they are used to narrow a pool of possibilities for investigational leads.

# Attachment 1: Project Schematic

NIST uses (A) and (B) to research algorithms and develop standards (C) that are supported by the data characteristics – in this case tattoo images.

FBI BCOE Tattoo Data Usage at NIST

NIST publishes research & best practices, and contributes actionable comments to standards bodies (C). Reports may go on the NIST web site and may be published in conference papers and journals.

NIST Tattoo Recognition Technology Research

Report research results to the public

(A) Tattoo data and (B) reference annotations

**NIST**  
 • NIST funded research tasks

- FBI BCOE collected and developed a tattoo dataset that enables research by USG agencies on new techniques and algorithms for automatic recognition of tattoos.
- FBI tattoo data is distributed to NIST under Government Furnished Information Agreement (2), and the sharing of FBI data with other federal agencies is allowed as documented by (3).
- NIST conducts biometric algorithm research and technology standardization (C) using Biometric Initiative STRS under the mandate of the USA PATRIOT Act.
- The FBI BCOE data provided to NIST:
  - Will be accessed only by NIST researchers
  - Is coded to insure that the identities of the contributing subjects cannot be readily ascertained. NIST does not have access to the key as the FBI will not release the key to NIST.
  - Is not well suited for individual identification, it is only usable to narrow a pool of possibilities for investigational leads.

Tattoo Data From FBI BCOE

- Attachments provided in package:
- (1) This Schematic of Tattoo Data Usage
  - (2) Government Furnished Information Agreement
  - (3) FBI BCOE Citation of Authorities

The (B) reference annotations include coded subject IDs. NIST will never receive information about subjects' identities. NIST uses (B) as algorithm inputs and answers.

NIST research activities are on image and algorithm technology and automated algorithm development.