



## **Workshop I - Future of NFIQ**

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# NFIQ – test of time

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- ÷ Novel definition of biometric quality
  - performance related
  - accepted by the community
- ÷ Interoperability
  - uniform interpretation
  - tuned to a class of matcher
- ÷ Open source
- ÷ Extensively examined
  - by NIST and others
  - tools for quality summarization, slap, ...

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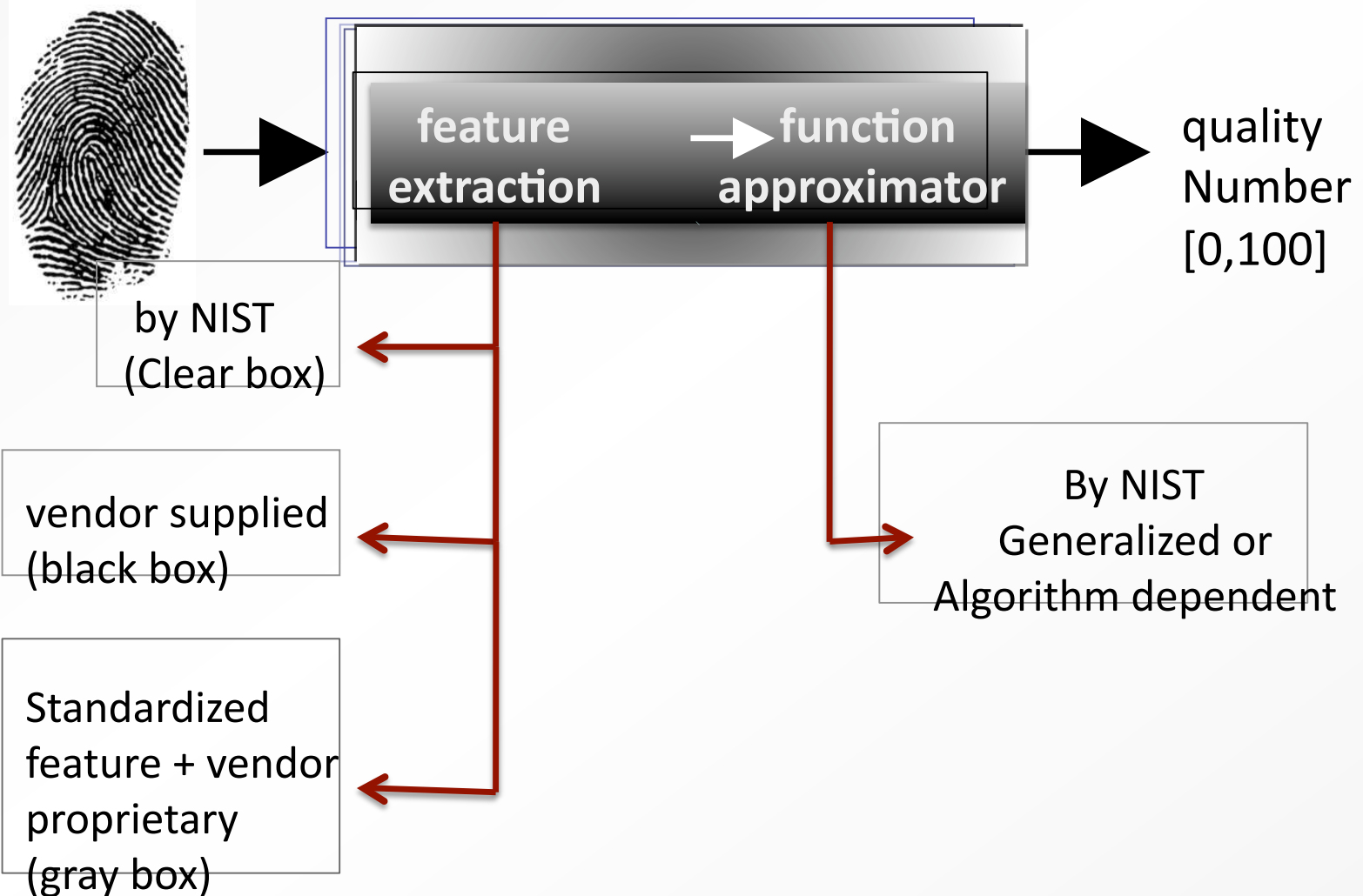
- ÷ Aging
  - recognition technology has advanced since 2004.
- ÷ Efficiency
  - ~300 msec per image - not fast enough for real time
  - takes 4 times for 4-finger slap
- ÷ Not enough levels
  - Still statistically significant
- ÷ Not enough NFIQ 4

# Options for NFIQ 2.0 - 1

- ÷ Do nothing!
- ÷ Incremental updates to NFIQ towards NFIQ 2.0
  - An improved NFIQ, generalized vanilla flavor
    - feature extraction, training data, machine learning algorithm are all done by NIST
  - No ability to customize it to a particular application
  - Limited collaboration with industry
- ÷ Modular NFIQ 2.0
  - Plug-and-play feature vector
    - Improves efficiency in field operations
  - NIST does the training using its large sets of data
    - Generalized or specialized to a particular comparison algorithm
    - Feedback to vendors
  - Expands the marketplace of interoperable products
    - Calibrated quality in standardized range [0,100]

**We like to hear your comments, suggestions.**

## options for NFIQ 2.0 - 2



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