

Name	Isao Echizen, Professor	Location	NII	Research Field	Multimedia, Information Security, Privacy Protection
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Our research topics span a wide of range, including the basic theory and applied systems. Especially we focus on the integrated area of multimedia and information security as well as that of multimedia and privacy protection.

Laboratory URL: <http://research.nii.ac.jp/~iechizen/official/index-e.html>

Main research themes:

Biometric identity theft prevention

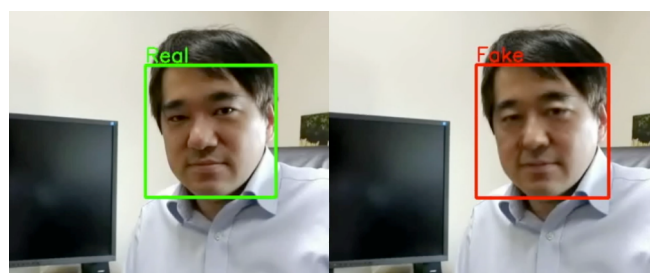
With widely use of high-performance cameras and microphones in modern society, it has been pointed out that it is possible to acquire someone's biometric information through remote capturing. This research establishes a technical platform for enabling control over the acquisition of personal biometric information and distribution of that information in cyber space based on that person's wishes.



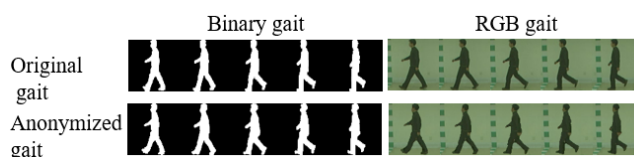
PrivacyVisor® protecting against facial detection and
BiometricJammer preventing fingerprint capture

Biometric spoofing and anti-spoofing

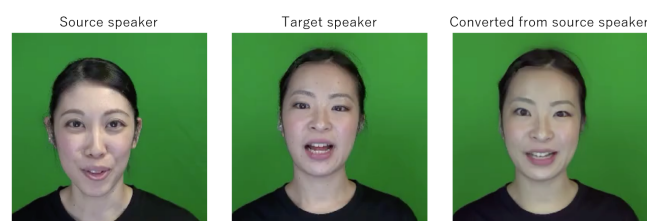
There are concerns that the diffusion of cameras, microphones, and other types of sensors in society can lead to invasions of privacy because of chaotically sharing of face, voice, and gait in the virtual world. In addition, advances in multimedia processing are making it possible to impersonate (spoo) just about any real-world person in the virtual world. This research establishes a platform for protecting and using multimedia information, which aims to provide biometric (anti-)spoofing and anonymize biometric information.



Fake video detection



Gait anonymization using GAN



Audiovisual speaker transformation

In addition to the above, we are also engaged in research on fundamental technologies and system technologies related to information security and privacy protection.

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