Bo Chen

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- Mobile devices are broadly used to handle sensitive data
  - A human rights worker collects evidence of atrocities in a region of oppression using his/her mobile device

- Conventional encryption may not work
  - Vulnerable to a coercive attack

An attacker forces the device's owner to disclose the decryption key

TELL ME YOUR KEY!!!

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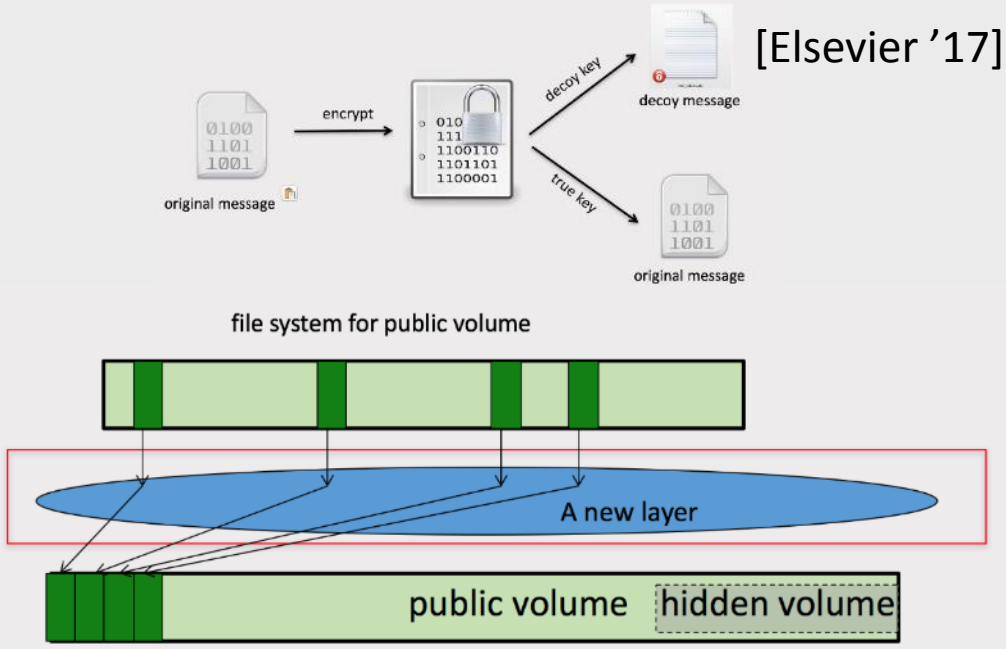
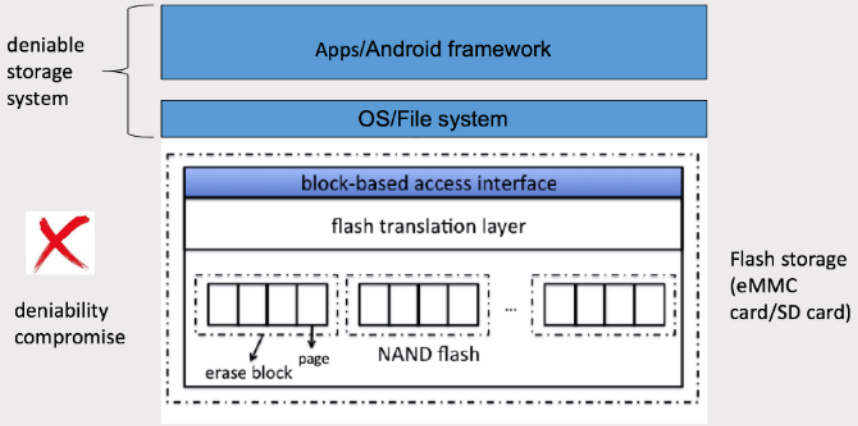
Deniable encryption storage for mobile devices

- The first user friendly deniable storage system for mobile devices [Elsevier '17]
- Eliminate deniability compromise in the underlying flash medium [CCS '17]

[Elsevier '17]



[CCS '17]



B. Chang, Y. Cheng, **B. Chen**, F. Zhang, W. Zhu, Y. Li, and Z. Wang. User-Friendly Deniable Storage for Mobile Devices. *Elsevier Computers & Security*, 2017. (to appear)

S. Jia, L. Xia, **B. Chen**, and P. Liu. DEFTL: Implementing Plausibly Deniable Encryption in Flash Translation Layer. In *Proceedings of ACM CCS '17*. (acceptance rate: 18%)

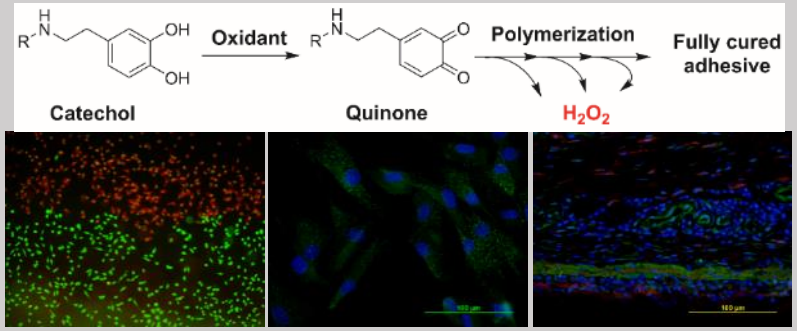
Bruce P. Lee

Biomimetic Biomaterials

Polymer Chemistry, Bioadhesive,
Smart Biomaterial and Adhesive

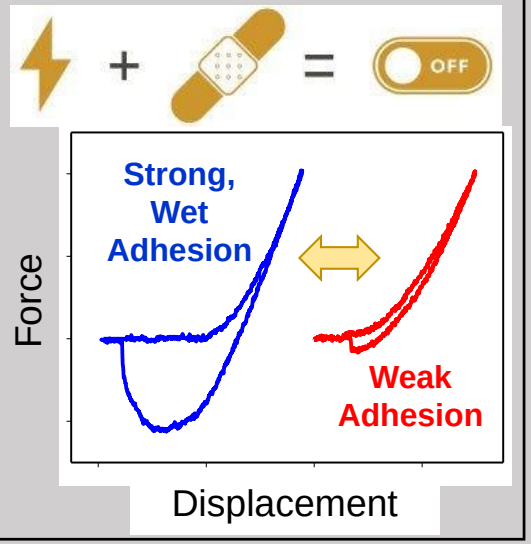
Bioadhesive for Tissue Repair and Regeneration

Polymeric Model System Development



Chemistry from Mussel

Underwater Smart Adhesive



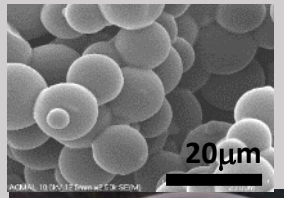
Re-shapeable Gel as Fit-to-Shape Sealant

Remoldable Gel

Injectable

Seal sutured anastomosis

Adhere to non-flat surface



Recyclable and Anti-Pathogenic Microparticles