

Multimedia Security @ I²R

Ng Tian Tsong

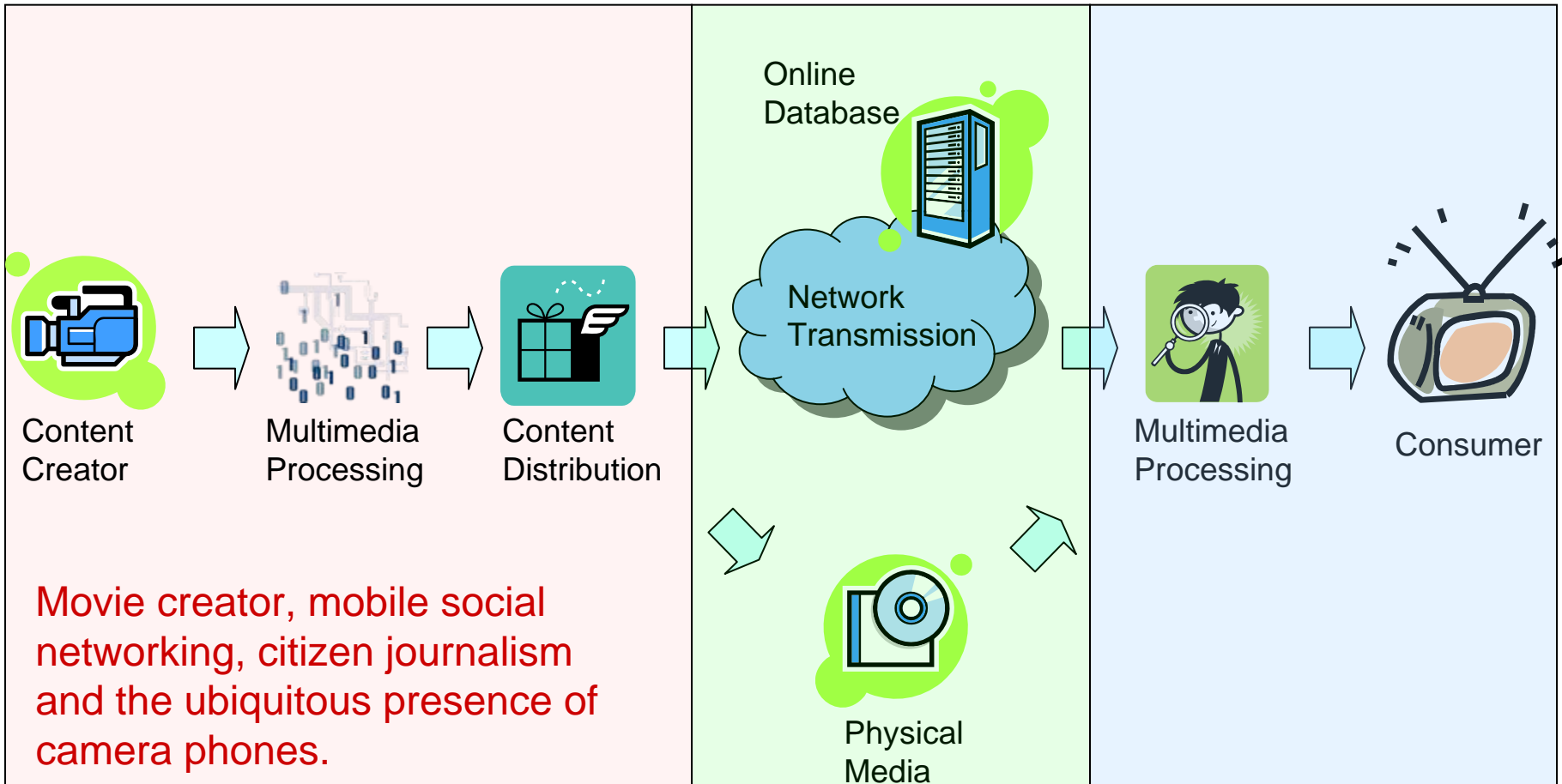
Institute for Infocomm Research

Multimedia Content Lifecycle

Creation

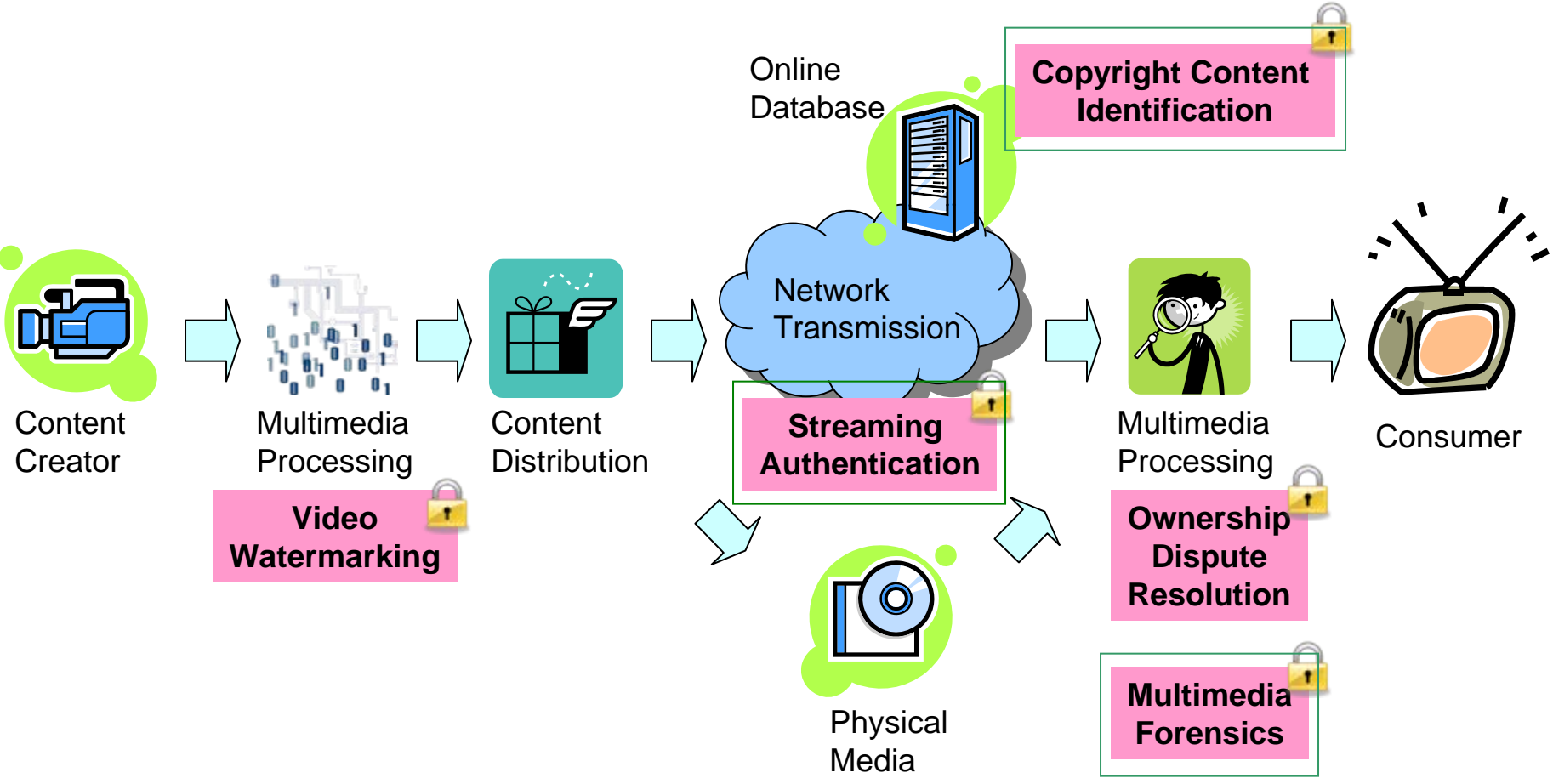
Delivery

Consumption



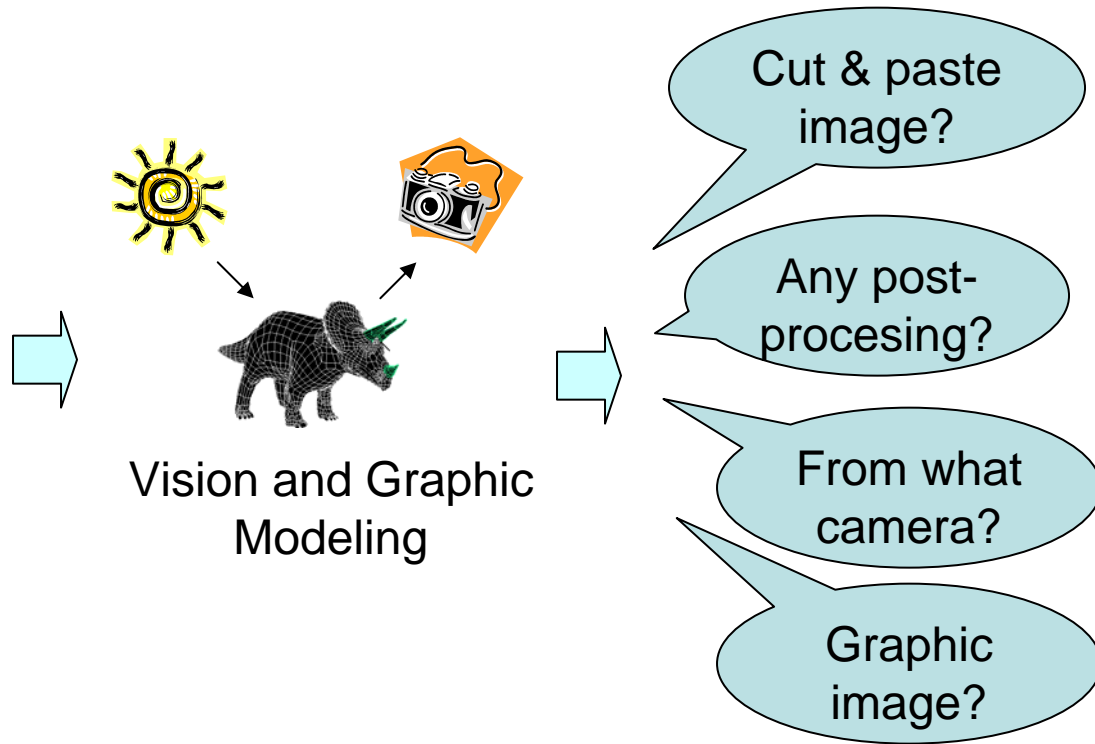
Multimedia Security @ I²R

Digital Rights Management & System Security Analysis 

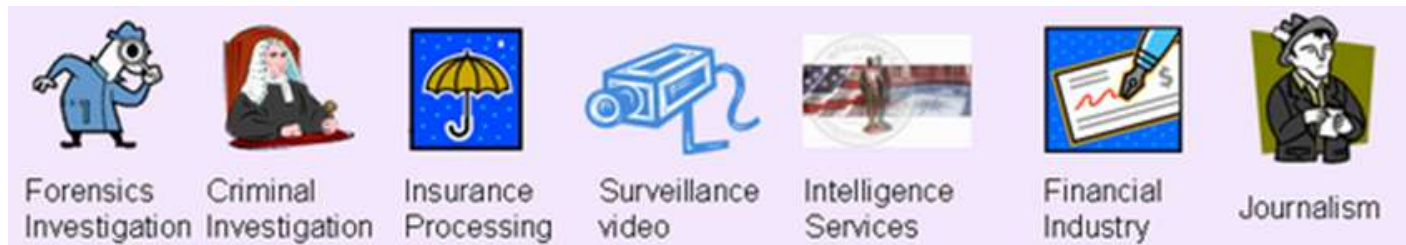


Multimedia Forensics

Altered images



Applications

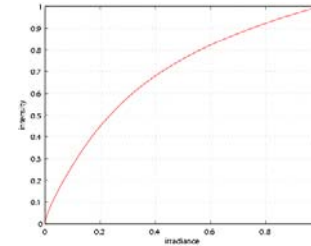


Works Multimedia Forensics

Image Splicing Detection



Camera Type Identification

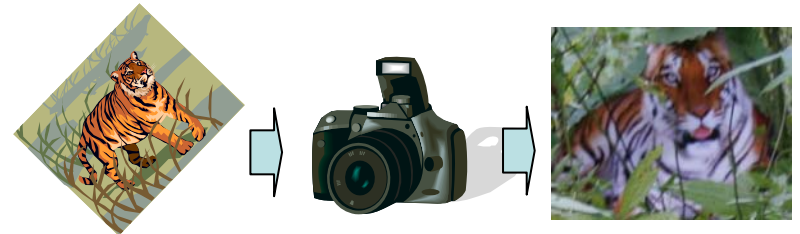


CG vs. Photo Classification

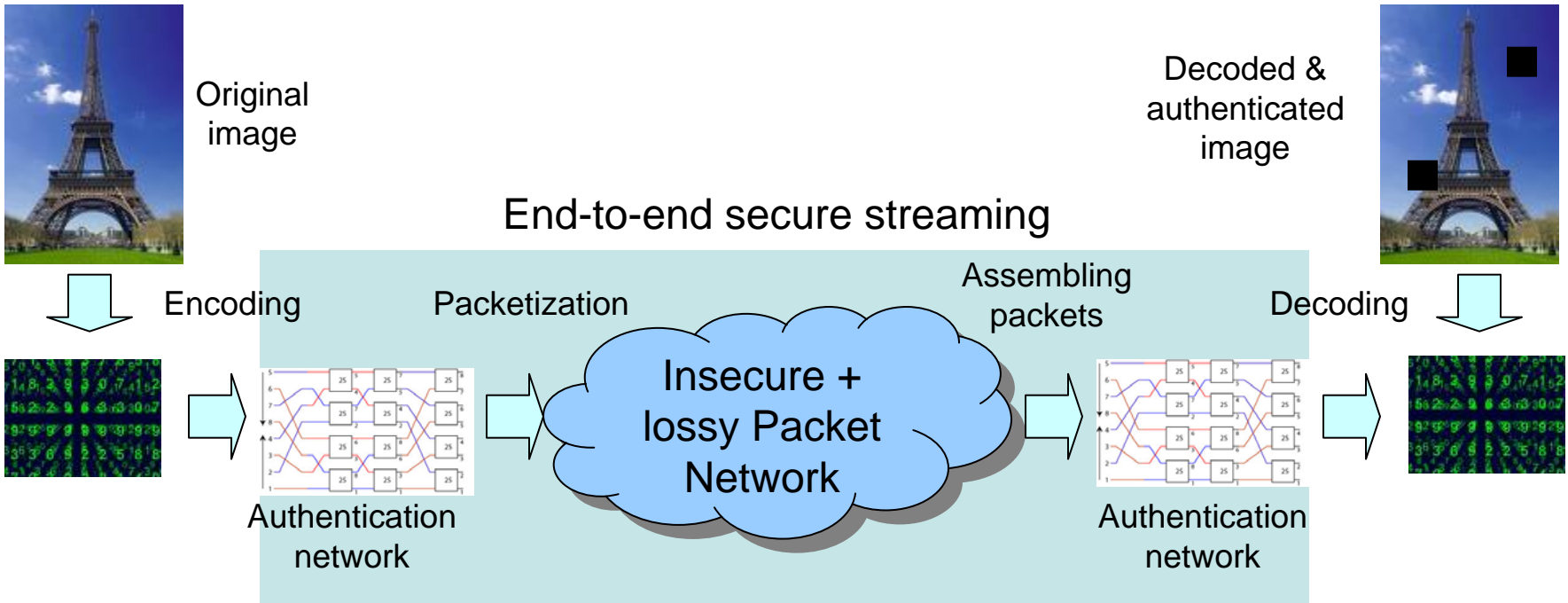
CG Or Photo?



Recaptured Image Detection



Stream Authentication



Malicious agents

- Swap content.
- Pretending sender.

Collaboration with

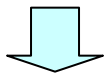


Palo Alto

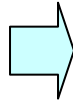
Copyright Content Identification



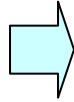
Copyright Content



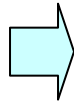
Content hash



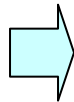
Cinema



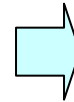
CD/DVD



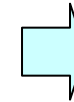
Broadcast



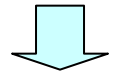
Video on demand



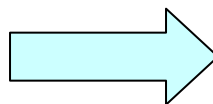
Pirated copies



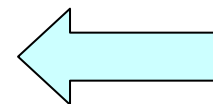
Content Sharing



Content hash



Copyright content database



Thanks