

Legal Considerations in Purchasing over the Internet

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Introduction

- Overview of Electronic Commerce
- Creating Enforceable Contracts Online
- Cryptography: The Key to e-Commerce
- The Purchasing Web Site
- Buying Digital Goods



Part One: Overview of Electronic Commerce

Digital Revolution

- Digitization of content
- Integration of communications channels
- Internetworking of world's computers
- Use of digital networks for communicating and transacting business (email, web sites)

Online Business Models

- New Media
- Transactions
- Services
- Sales of Goods
- Distribution of Digital Goods

New Media

- **Publications (wsj.com)**
- **Promotional (mbc.com)**
- **Advertising (news.com)**
- **Push models (pointcast.com)**

Transactions

- **Brokerage (etrade.com)**
- **Banking (fcnb.com)**
- **Payment (cybercash.com)**

Services

- **Information (switchboard.com)**
- **Travel (expedia.com)**
- **Entertainment**

Sale of Goods

- Industrial (graininger.com)
- Computers (dell.com)
- Online Auctions (onsale.com)
- Consumer (amazon.com)

Digital Goods

- Music
- Video
- Software
- Value (e.g., postage)

Case Study PC Postage

- Postage downloaded to PCs
- Value stored on secure device
- Indica printed out on regular printer
- User has better tracking



Purchasing

- **Thomas Register (thomasregister.com)**
- **Vortex Markets (e.g., reagents)**
- **Facilitation Services (freemarkets.com)**
- **Auctions (onsale.com)**

Impact on Purchasing

- **Efficiencies through automation**
- **More power to buyer**
- **Lower prices**
- **Shorter sales cycles**
- **Disintermediation is a double-edged sword**

Part Two: Creating Enforceable Contracts Online

Contract Law

- **Formation: Offer and Acceptance**
- **Terms**
- **Enforceability**
- **Sources of Law**
 - UCC 2-207; 2B-207; 2B-208
 - Hotmail v. Van\$ Money Pie
 - ProCD Inc. v. Zeidenberg

Methods of Contracting Online

- **E-Mail (free form)**
- **Web Sites (online form completion)**
- **Electronic Data Interchange (EDI)**
- **Intelligent Agents (computer agents)**

Contracts at Web Sites - Standard Forms

To place your order, enter information and press “Send Order” button. All orders subject to acceptance by ABC Co., and Standard Terms and Conditions.

Name: _____

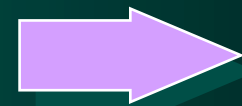
Address: _____

Account Number: _____

Item(s) and Quantities: _____

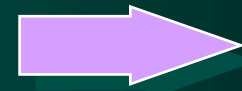
Payment Method: _____

Press “Send Order” to confirm
the above order and your agreement
to the Standard Terms and Conditions




**SEND
ORDER**

To cancel your order, press “Cancel”



CANCEL

General Rules for Standard Form Contracts Online

- Notice of all terms upfront
- Opportunity to review
- Require affirmative conduct to accept, such as clicking an  button
- Consciousness for Uncommon Terms
- Offer a refund if terms not acceptable

Part Three: The Role of Cryptography

Transaction Assurance Requirements

- Authenticity
- Integrity
- Nonrepudiation
- Writing and Signature
- Confidentiality

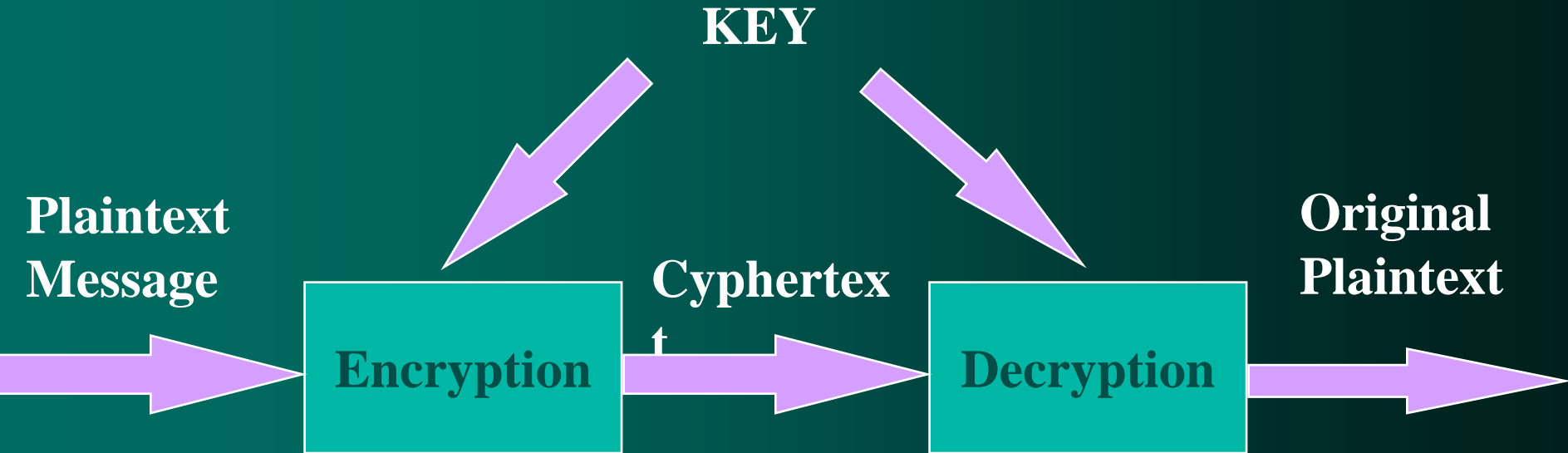
Definitions

- Cryptography -- Art and science of keeping messages secure
- Plaintext -- A readable message
- Encryption -- Process of disguising a message in order to hide its substance
- Cyphertext -- An encrypted message
- Decryption -- Process of turning cyphertext back into plaintext
- Hash Function -- Unique digital rep. of message

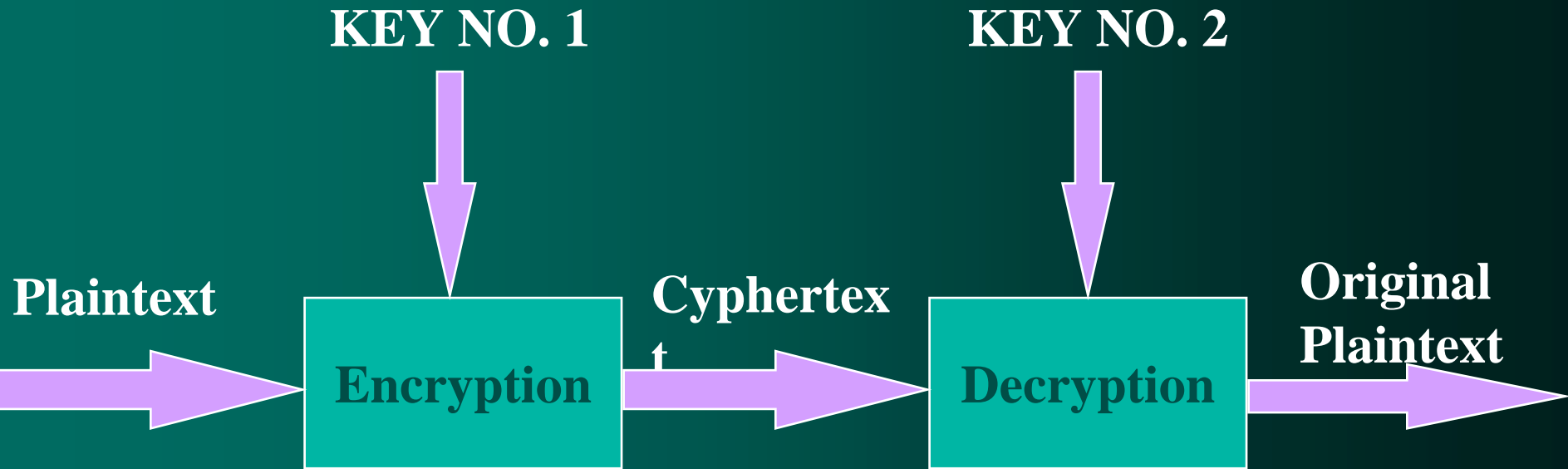
Two Types of Encryption

- **Conventional (symmetric) encryption**
 - Uses a single secret key
- **Public-key (asymmetric) encryption**
 - Uses two keys -- one secret and one public

SINGLE KEY ENCRYPTION AND DECRYPTION



PUBLIC KEY ENCRYPTION AND DECRYPTION



Digital Signatures

- A transformation of a message
- Using public key encryption
- Such that a person having the message and the signer's public key can determine:
 - whether message was created using the corresponding private key (authentication)
 - whether the message has been altered since it was sent (integrity)

Digital Signature Benefits

- Establish authenticity of the message
- Verify integrity of the message
- Provide for agreement to be bound
- Meet legal writing and signature requirements

Digital Signatures Are Not

- Digitized handwritten signature
- Typed name of a person
- Secret code for a person
- Unique to a person
(i.e., each signature is different)

A Digital Signature

-----BEGIN PGP SIGNED MESSAGE-----

We accept your order and will deliver 1,000 widgets at \$2,500 each on
2/24/96. Payment terms net 30. -- Bob Jones

Robert Jones (jones@acme.com)

Acme Widget Corporation, 44 Main Street, Boston, MA 02131 USA (617)
555-7923

-----BEGIN PGP SIGNATURE-----

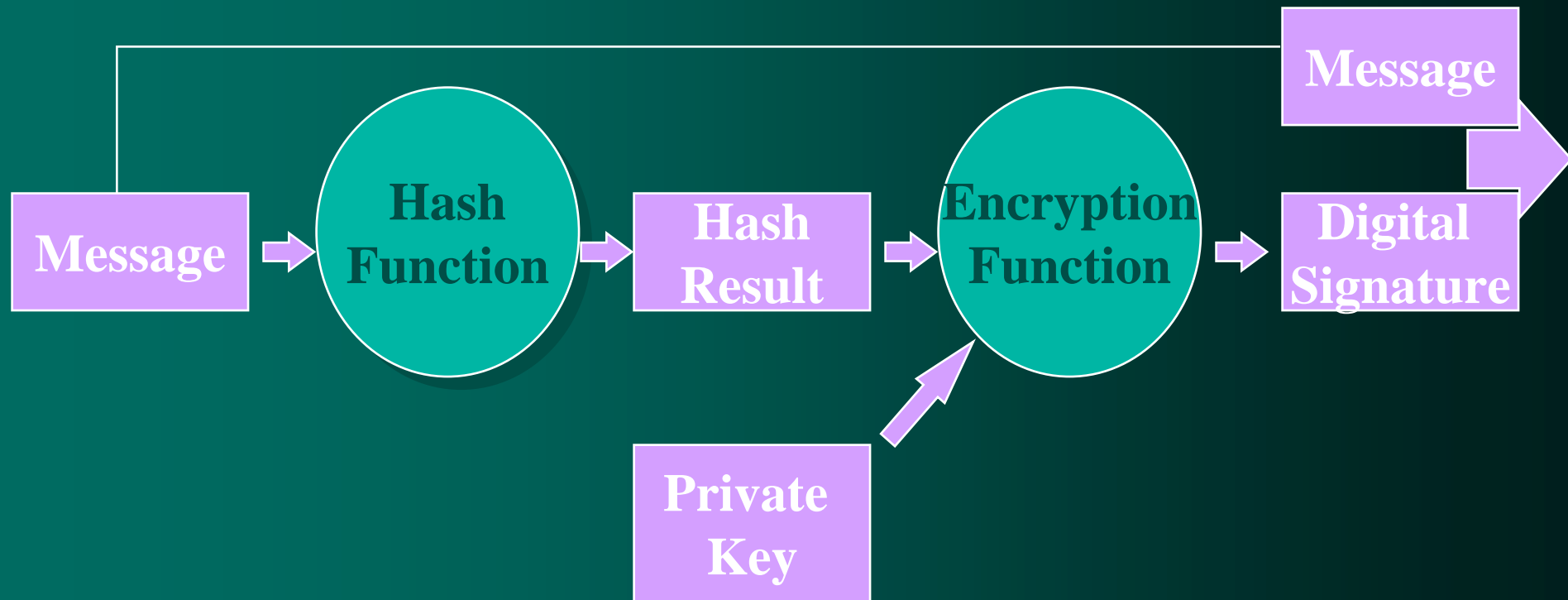
Version: 2.6.2

iQCVAwUBMARo7vgyLN8bw6ZVAQF6ygP/fDnuvdAhGIDWsSMXUIRMu
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09b1OcjNt6+o+704Z3j1YY9ijYM8BWNasp9L2W4nUuWBdIyIWyol/2Pj
jRVNZEttSRQnPEpJ2IHtz9iGovHf0SqhSZKZs=

=+Q3I

-----END PGP SIGNATURE-----

Creating a Digital Signature



A Digital Signature

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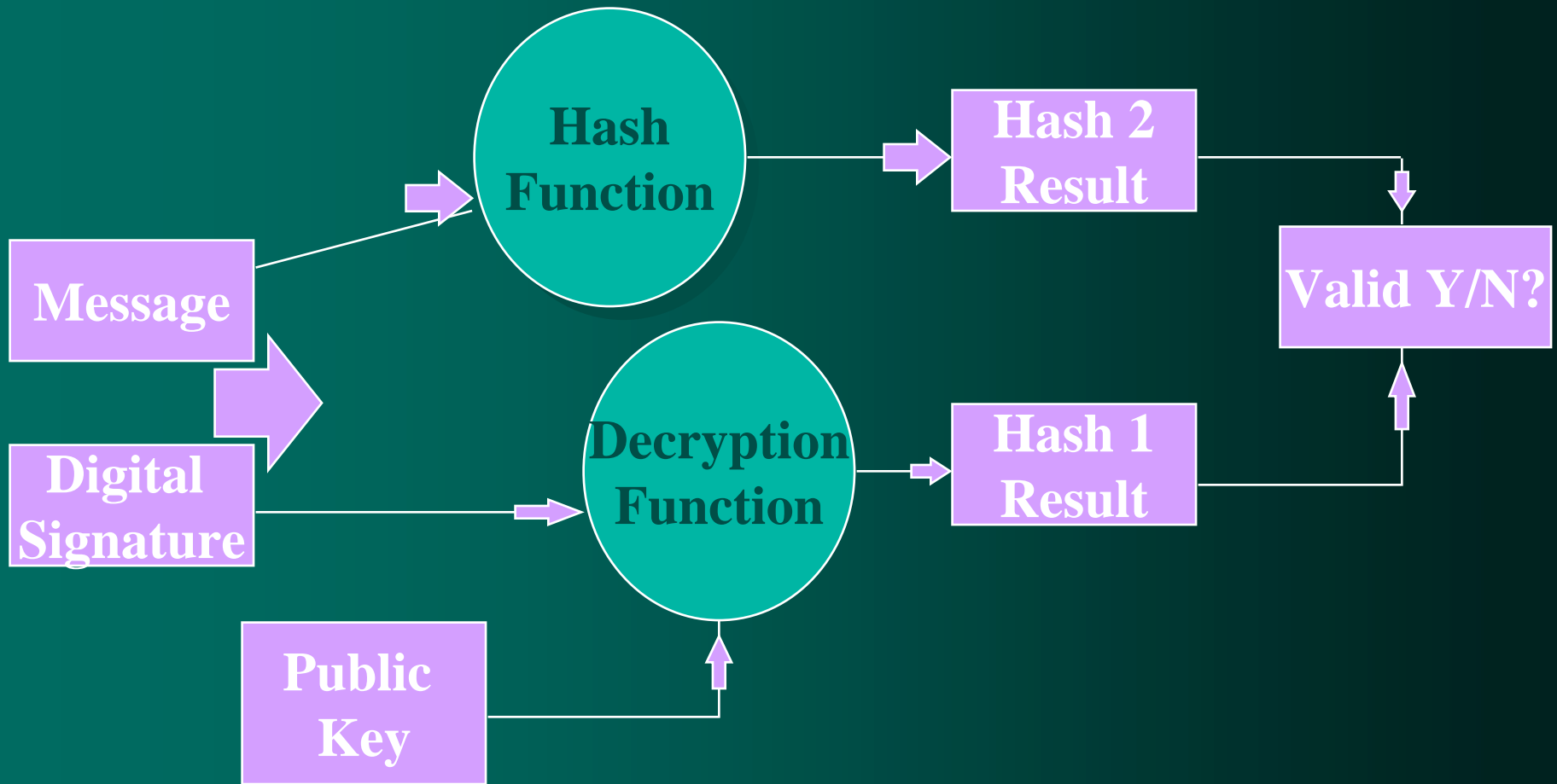
Version: 2.6.2

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09b1OcjNt6+o+704Z3j1YY9ijYM8BWNasp9L2W4nUuWBdIyIWyol/2Pj
jRVNZEttSRQnPEpJ2IHtz9iGovHf0SqhSZKZs=

=+Q3I

-----END PGP SIGNATURE-----

VERIFYING A DIGITAL SIGNATURE



Legal Effect of Digital Signatures

- Authentication of source
- Integrity of document
- Writing and signature requirement met
- Signature binding, *whether authorized or not*

Two Problems

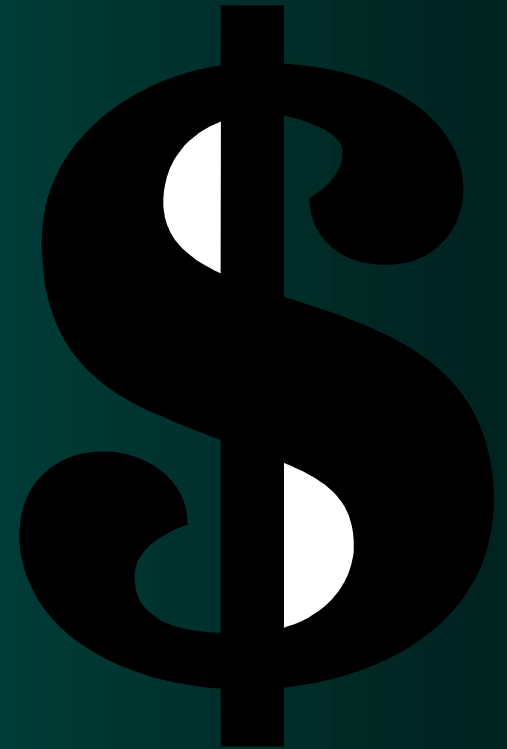
- **Relating the signer to the public key**
- **Ensuring that the signer does not compromise his or her public key**

Certification Authority

- Trusted third party
- Associates signer with the key pair used to create the digital signature
- Issues a Certificate to do this
- Certificates published in a repository

Representing Money

- **Token (physical object)**
 - Paper
 - Coins
- **Notation (number)**
 - Ledger book
 - Computer record



Online Payment Systems

- What Is Money?
- Online Equivalents
- Credit Cards
- Electronic Checks
- Digital Cash

Transferring Money

- Direct exchange of tokens
 - Buyer gives coins to seller
- Instruction from the buyer to a third party instructing that third party to pay the seller
 - Check
 - Credit card receipt
 - Payment order

Online Equivalents

- **Instructions**
 - **Electronic fund transfers**
 - **Online credit card transactions**
 - **Electronic checks**
- **Tokens**
 - **Digital cash**

The New SET Standard

- **Secure Electronic Transaction (SET)**
- **Proposal by Mastercard and Visa**
- **Uses digital signatures for authentication and message integrity**
- **Requires certification authority**
- **Uses encryption for confidentiality**
- **www.mastercard.com/set/set.htm**

Electronic Checks

- Modeled on paper check
- Delivered by e-mail
- Uses digital signatures for authentication and endorsement
- Developed by Financial Services Technology Consortium (FSTC)
- Successfully tested

Digital Cash

- Money (token) represented in digital form
- Two basic types
 - Offline digital cash
 - Online digital cash
- Two basic forms
 - Anonymous
 - Identified



Companies Developing Digital Cash

- DigiCash -- www.digicash.com
- CyberCash -- www.cybercash.com

Part Four: Building a Purchasing Web Site

Building a Web Site

- **Benefits**
- **Development**
- **Hosting**
- **Intellectual Property**
- **Other Legal Pitfalls**
- **Terms of Access**

Benefits

- **Control Terms of Sale**
- **Automate Proposal Submission**
- **Distribute Policies, RFPs**
- **Support Accounts Payable**
- **Relationship Building**

Development Issues

- Specifications
- Acceptance Criteria
- Ownership
- Acquiring Content

Specifications and Acceptance

- **Compatibility with browsers**
- **speed (file size)**
- **links work properly**
- **look and feel**
- **maintenance**

Who Owns the Web Site

- **Person Who Created the Work**
- **Works For Hire**
 - Employees: w/i scope of employment
 - Commissioned Works
- **Ownership By Assignment**



Acquiring Content

- Create new material
- Use preexisting material you own
- Use preexisting material that is not protected
- Use preexisting material with permission

Hosting Issues

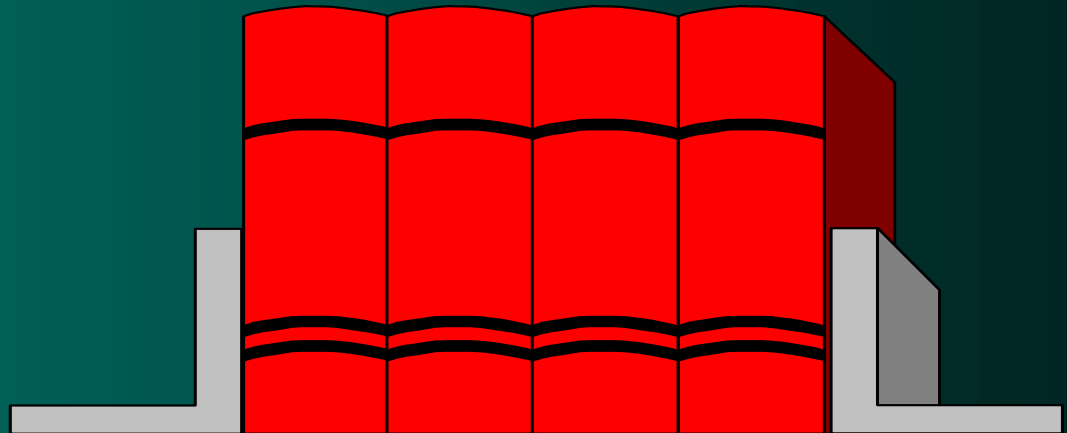
- **Type of Services**
- **Availability and Performance**
- **Disaster and Contingency Planning**
- **Security**
- **Pricing Model**
- **Value Added Services**
- **Domain Name**

Intellectual Property

- Copyrights
- Patents
- Trademarks
- Trade Secrets

What Is A Copyright?

- Grant of Rights to Authors
- Protects “Original Works of Authorship”
- Fixed in a “Tangible Medium of Expression”



Original Work of Authorship

- **Requirements Are:**
 - Originality
 - Modicum of Intellectual Effort
- **Does Not Include**
 - Facts
 - Ideas
 - Functionality

Protectable Expression

- **Literal Elements**
- **Nonliteral Elements**
 - structure
 - sequence
 - organization
- **Copyright Protects the Expression of an Idea But Not the Idea**

Categories of Protected Expression

- Literary Works
(includes software)
- Pictorial, Graphic and Sculptural
- Audiovisual
- Music and Sound Recordings
- Software
- Compilations and Databases



How Acquired

- **Automatically Protected**
- **Global Coverage**
- **Copyright Notice**
 - Copyright (c) 1998 Andrew R Basile
- **Copyright Registration**

Exclusive Rights

- **Reproduction (copy, install and use)**
- **Adaptation (derivative works)**
- **Distribution (sell, rent, lease)**
- **Public Performance**
- **Public Display**
- **Transmission**

Copyright Online

- Viewing Content
- Downloading Content and Software
- Back-ups
- Print-outs
- Performance and Display
- Transmission
- Forwarding and Linking

When Don't You Need Express Permission?

- **Implied License**
- **Public Domain**
- **Fair Use**
- **Not Subject to Copyright Protection**

What Is A Patent

- **Right Granted by Federal Government**
- **To Exclude Others From**
 - Making
 - Using
 - Selling
- **Protects Against Independent Creation**

Patents Online

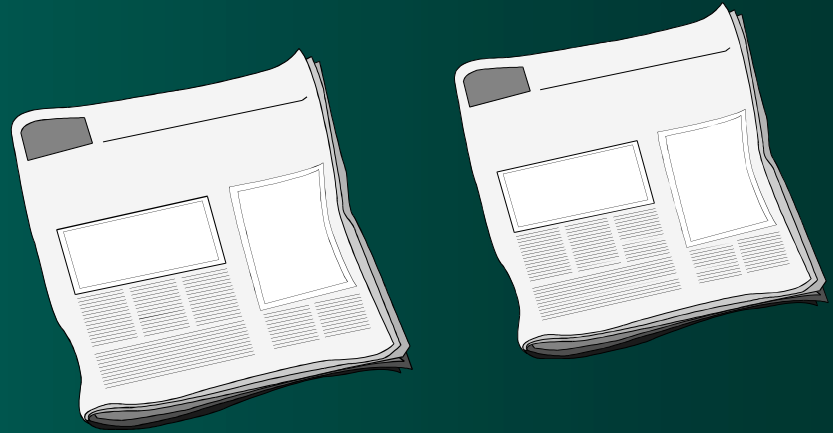
- **Computerized Business Models**
 - *State Street Bank v. Signature Financial*
- **Compression (Unisys GIF)**
- **Encryption (RSA)**
- **Marketing (Cybergold)**
- **Reverse Auction (Priceline)**

Other Pitfalls

- **Jurisdiction**
- **Local Regulation Confidentiality**
- **Defamation**
- **Privacy**
- **Linking and Framing**

Getting Hyper About Links

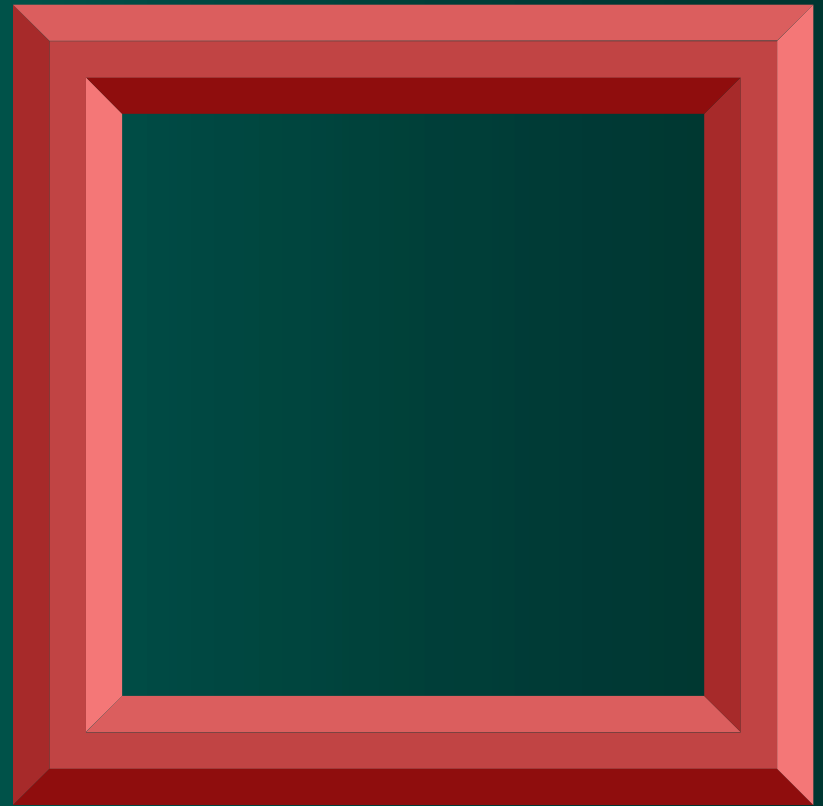
- A tale of two newspapers
 - *Shetland Times*
 - *Shetland News*
- Ticketmaster and Microsoft: show me the money?



What's in a Frame?

The TotalNews Controversy

- Publishing giants sued *TotalNews*
- What is framing and why don't publishers want to be “framed”?





FOX News

MSNBC

CNN
Interactive

CBS

USA Today

ABC Radio

NPR

Yahoo!
newsThe Nando
Times

TIME Daily

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Metatags

- **Not Visible to User**
- **Tracked by Search Engines**
- **Lead Visitors to Competitor's Site**
- **At Least One Pending Lawsuit**

Terms of Access

- **Proprietary Rights Notices**
- **Warranties and Disclaimers**
- **Limitations of Liability**
- **Linking and Framing**
- **Conditions and Restrictions on Use**
- **Consents as Required**



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