

E-commerce 2021–2022: Business. Technology. Society.

Seventeenth Edition, Global Edition



Chapter 4

Building an E-commerce Presence

We will use these slides for your tutorial activity today. I will explain further.

Learning Objectives

- 4.1** Understand the questions you must ask and answer, and the steps you should take, in developing an e-commerce presence.
- 4.2** Explain the process that should be followed in building an e-commerce presence.
- 4.3** Identify and understand the major considerations involved in choosing web server and e-commerce merchant server software.
- 4.4** Understand the issues involved in choosing the most appropriate hardware for an e-commerce site.
- 4.5** Identify additional tools that can improve website performance.
- 4.6** Understand the important considerations involved in developing a mobile website and building mobile applications.

Imagine Your E-commerce Presence (1 of 3)

- What's the idea? The vision includes:
 - Mission statement
 - Target audience
 - Intended market space
 - Strategic analysis
 - Marketing matrix
 - Development timeline
 - Preliminary budget
 - Back to vision: what is the value proposition – customer-centric

Imagine Your E-commerce Presence (2 of 3)

- Where's the money?
 - Business model(s)
 - Revenue model(s)
- Who and where is the target audience?
 - Demographics, lifestyle, consumption patterns, etc.
- What is the ballpark? Characterize the marketplace
 - Size, growth, demographics, structure

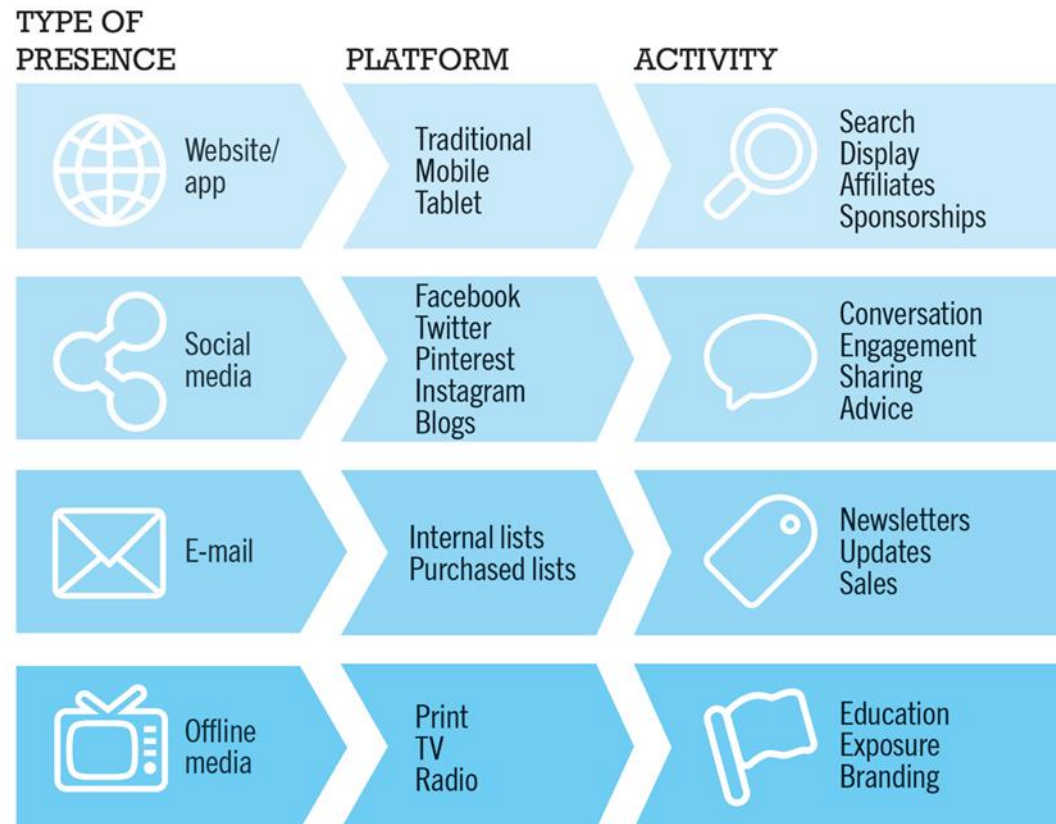
Imagine Your E-commerce Presence (3 of 3)

- Where's the content coming from?
- Know yourself-SWOT analysis
- Develop an e-commerce presence map
- Develop a timeline: Milestones
- How much will this cost?
 - Simple website: up to \$5000
 - Small startup: \$25,000 to \$50,000
 - Large corporate website: \$100,000+ to millions

Figure 4.1 SWOT Analysis



Figure 4.2 E-commerce Presence Map



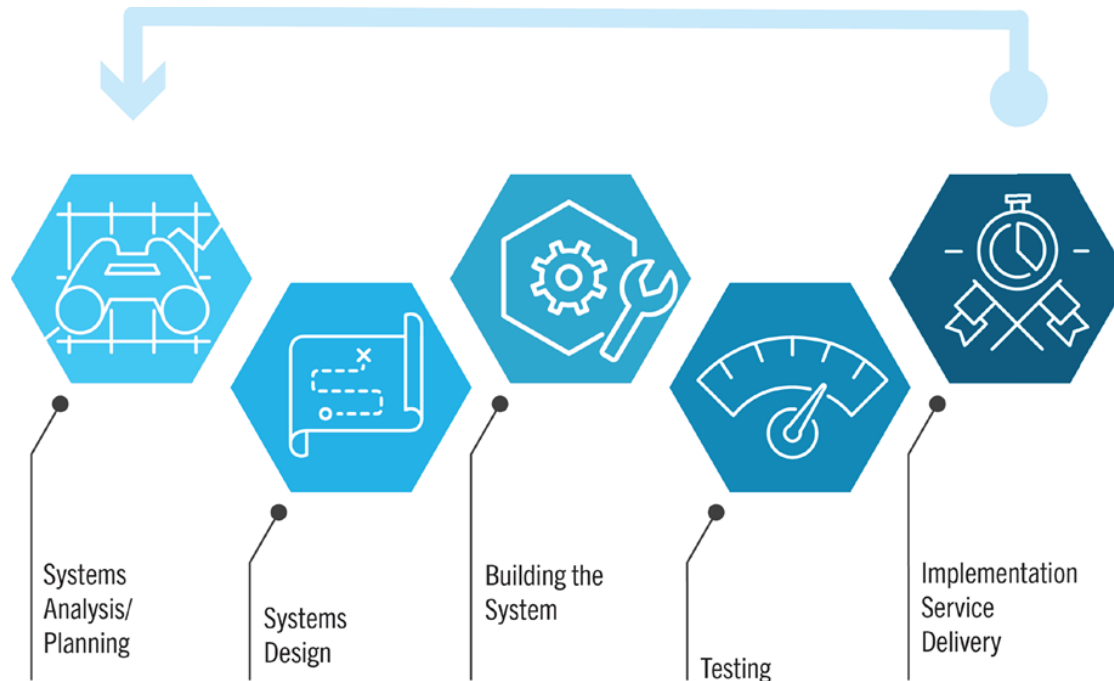
Building an E-commerce Site: A Systematic Approach

- Most important management challenges:
 1. Developing a clear understanding of business objectives and the value proposition.
 2. Knowing how to choose the right technology to achieve those objectives
- Main factors to consider
 - Management
 - Hardware architecture
 - Software
 - Design
 - Telecommunications
 - Human resources

Planning (technical stuff?): The Systems Development Life Cycle

- Methodology for understanding business objectives of a system and designing an appropriate solution
- Five major steps:
 - Systems analysis/planning
 - Systems design
 - Building the system
 - Testing
 - Implementation

Figure 4.5 Systems Development Life Cycle



Best Practices

Continuous availability 99%+ ● Design for scalability ● Build in management for end-to-end delivery ● Plan for growth ● Design system for high-speed performance ● Understand and optimize workload on system

System Analysis/Planning

- Business objectives to deliver the value proposition:
 - List of capabilities you want your site to have
- System functionalities:
 - List of information system capabilities needed to achieve business objectives
- Information requirements:
 - Information elements that system must produce in order to achieve business objectives

Table 4.2 System Analysis, Business Objectives, System Functionalities, and Information Requirements for a Typical E-commerce Site (1 of 2)

Business Objective	System Functionality	Information Requirements
Display goods	Digital Catalog	Dynamic text and graphics catalog
Provide product information	Product database	Product description, stocking numbers, inventory levels
Personalize/customize product	Customer on-site tracking	Site log for every customer visit; data mining capability to identify common customer paths and appropriate responses
Engage customers in conversations	On-site blog; user forums	Software with blogging and community forum functionality
Execute a transaction	Shopping cart/payment system	Secure credit card clearing; multiple payment options
Accumulate customer information	Customer database	Name, address, phone, and e-mail for all customers; online customer registration

Table 4.2 System Analysis, Business Objectives, System Functionalities, and Information Requirements for a Typical E-commerce Site (2 of 2)

Business Objective	System Functionality	Information Requirements
Provide after-sale customer support	Sales database	Customer ID, product, date, payment, shipment date
Coordinate marketing/advertising	Ad server, e-mail server, e-mail, campaign manager, ad banner manager	Site behavior log of prospects and customers linked to e-mail and banner ad campaigns
Understand marketing effectiveness	Site tracking and reporting system	Number of unique visitors, pages visited, products purchased, identified by marketing campaign
Provide production and supplier links	Inventory management system	Product and inventory levels, supplier ID and contact, order quantity data by product

Systems Design: Hardware and Software Platforms

- System design specification:
 - Description of main components of a system and their relationship to one another
- Two components of system design:
 - Logical design
 - Data flow diagrams, processing functions, databases
 - Physical design
 - Specifies actual physical, software components, models, and so on

Building the System: In-House Versus Outsourcing

- Outsourcing: Hiring vendors to provide services involved in building site
- Build own vs outsourcing:
 - Build your own requires team with diverse skill set; choice of software tools; both risks and possible benefits
- Host own vs outsourcing
 - Hosting: Hosting company responsible for ensuring site is accessible 24/7, for monthly fee
 - Co-location: Firm purchases or leases web server (with control over its operation), but server is located at vendor's facility

Figure 4.7 Choices in Building and Hosting

		BUILDING THE SITE	
		In-house	Outsource
HOSTING THE SITE	In-house	COMPLETELY IN-HOUSE Build: In Host: In	MIXED RESPONSIBILITY Build: Out Host: In
	Outsource	MIXED RESPONSIBILITY Build: In Host: Out	COMPLETELY OUTSOURCED Build: Out Host: Out

E-commerce Website Features That Annoy Customers (1 of 2)

- Requiring user to view ad or intro page before going to website content
- Pop-up and pop-under ads and windows
- Too many clicks to get to the content
- Links that don't work
- Confusing navigation; no search function
- Requirement to register and log in before viewing content or ordering
- Slow loading pages
- Content that is out of date

E-commerce Website Features That Annoy Customers (2 of 2)

- Inability to use browser's Back button
- No contact information available (web form only)
- Unnecessary splash/flash screens, animation, etc.
- Music or other audio that plays automatically
- Unprofessional design elements
- Text not easily legible due to size, color, format
- Typographical errors
- No or unclear returns policy

Table 4.11 The Eight Most Important Factors in Successful E-commerce Site Design

Factor	Description
Functionality	Pages that work, load quickly, and point the customer toward your product offerings
Informational	Links that customers can easily find to discover more about you and your products
Ease of use	Simple foolproof navigation
Redundant navigation	Alternative navigation to the same content
Ease of purchase	One or two clicks to purchase
Multi-browser functionality	Site works with the most popular browsers
Simple graphics	Avoids distracting, obnoxious graphics and sounds that the user cannot control
Legible text	Avoids backgrounds that distort text or make it illegible

Personalization Tools

- Personalization: ability to treat people based on personal qualities and prior history with site
 - Website personalization alters site based on who is viewing it
- Customization: ability to change the product to better fit the needs of the customer
 - E-commerce customization focuses on generating personalized product recommendations
- Cookies a basic method to achieve personalization
- Other more sophisticated tools available

The Information Policy Set

- Privacy policy
 - Set of public statements declaring how site will treat customers' personal information that is gathered by site
- Accessibility rules
 - Set of design objectives that ensure users with disabilities can effectively access site

Insight on Society: Designing for Accessibility

- Class discussion:
 - Why might some merchants be reluctant to make their websites accessible to users with disabilities?
 - How can websites be made more accessible?
 - Should all websites be required by law to provide “equivalent alternatives” for visual and sound content?
 - What additional accessibility problems do mobile devices pose?

Table 4.13 Unique Features That Must Be Taken Into Account When Designing a Mobile Presence

Feature	Implications For Mobile Platform
Hardware	Mobile hardware is smaller, and there are more resource constraints in data storage and processing power.
Connectivity	The mobile platform is constrained by slower connection speeds than desktop websites.
Displays	Mobile displays are much smaller and require simplification. Some screens are not good in sunlight.
Interface	Touch-screen technology introduces new interaction routines different from the traditional mouse and keyboard. The mobile platform is not a good data entry tool but can be a good navigational tool.

Tutorial

- In groups of 3 students, select a company which you all three agree on. Necessary that the company has a good website so that you can review it.
- Examine the company and what they (the company) say about themselves online. Also do some general research about it on the Internet to see if there are any negative / positive reports about issues with the company.
- Complete the provided form: see Week 1 Activity EBS. We will discuss your completed forms in class.
- But also send the form to a.petrou@uwtsd.ac.uk
- Many thanks.

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