Behavior Research on Social Media Services

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Syllabus

週次月／日 內容（Subject/Topics）
1 100/02/19 Course Orientation for Social Media Services
2 100/02/26 Web 2.0, Social Network and Social Media
3 100/03/05 Theories of Media and Information
4 100/03/12 Theories of Social Media Services and Information Systems
5 100/03/19 Paper Reading and Discussion
6 100/03/26 Behavior Research on Social Media Services
7 100/04/02 Paper Reading and Discussion
8 100/04/09 教學行政觀摩日
9 100/04/16 Business Models and Issues of Social Medial Service
10 100/04/23 期中考試週
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Behavior Research on Information System
TRA (1975)

Fig. 1.2 Schematic presentation of conceptual framework for the prediction of specific intentions and behaviors.

TPB (1985)

Fig. 2.1. Schematic presentation of the theory of planned behavior

TPB (1991)

FIG. 1. Theory of planned behavior

Understanding
Online Consumer Behavior
Chapter 4
Online Consumer Behavior, Market Research, and Advertisement

LEARNING OBJECTIVES

1. Understand the decision-making process of consumer purchasing online.
2. Describe how companies are building one-to-one relationships with customers.
3. Explain how personalization is accomplished online.
4. Discuss the issues of e-loyalty and e-trust in EC.
5. Describe consumer market research in EC.
6. Describe the objectives of Web advertising and its characteristics.

(Source: Turban et al., 2010)
LEARNING OBJECTIVES

7. Describe the **major advertising methods** used on the Web.

8. Understand how **advertising** is done in **social networks** and the Web 2.0 environment.

9. Describe various **online advertising strategies** and types of **promotions**.

10. Describe **permission marketing**, **ad management**, **localization**, and other advertising-related issues.

(Source: Turban et al., 2010)
EXHIBIT W4.1.1  EC Consumer Behavior Model

Independent Variables

- Consumer Characteristics
  - Age
  - Gender
  - Ethnicity
  - Education
  - Lifestyle
  - Psychological makeup
  - Knowledge
  - Values

- Environmental Characteristics
  - Culture
  - Normative social influence
    (Peer/superior influence)
  - Informational social influence
  - Legal, institutional, government, regulations, political

- Merchant and Intermediary Characteristics
  - Brand reputation
  - Trustworthiness
  - Policies and procedures
  - Compensation and apology

Market Stimuli

- Product/Service Characteristics
  - Product/service knowledge
  - Product/service type
  - Product/service availability
  - Product/service customization
  - Product/service quality
  - Product/service variety
  - Differentiation
  - Frequency of purchase
  - Tangibility
  - Price
  - Brand

Intervening Variables

Buyers’ Decisions (dependent variables)

- Intention
- Purchase
- Repurchase

EC Systems (Technology and Web Site Variables)

- Payment and Logistics Supports
  - Payment Options
  - Delivery Options
  - Timeliness and accuracy of order delivery
  - Condition of product received
  - Security
  - Privacy

- Web Site Features
  - Accuracy
  - Up-to-date Information presentation
  - Completeness

- Customer Service
  - FAQs
  - Email
  - Call Centers
  - Personalization
  - One-to-one marketing

(Source: Turban et al., 2010)
A GENERIC PURCHASING-DECISION MODEL

1. Need identification
2. Information search
   – product brokering
     • Deciding what product to buy.
   – merchant brokering
     • Deciding from whom (from what merchant) to buy products.
3. Evaluation of alternatives
4. Purchase decision and delivery
5. Postpurchase behavior

(Source: Turban et al., 2010)
<table>
<thead>
<tr>
<th>Steps in the Decision-Making Process</th>
<th>CDSS Support Facilities</th>
<th>Generic Internet and Web Support Facilities</th>
</tr>
</thead>
</table>
| Need recognition                    | Agents and event notification  
                                        | Blogs                                      | Banner advertising on Web sites   
                                        |                                        | URL on physical material              |
| Information search                  | Virtual catalogs         | Web directories and classifiers             | Discussions in newsgroups          |
|                                     | Structured interaction and question/answer sessions | Internal search on Web site           | Web directories and classifiers   |
| Evaluation, negotiation, selection  | Links to (and guidance on) external sources | External search engines      | Discussions in newsgroups          |
|                                     | Search engines           | Focused directories and information brokers | Web directories and classifiers   |
| Purchase, payment, and delivery     | FAQs and other summaries | Search engines                             | Discussions in newsgroups          |
|                                     | Samples and trials       | Discussions in newsgroups                  | Cross-site comparisons            |
|                                     | Customers testimonials   | Wikis, blogs                               | Wikis, blogs                     |
|                                     | Models that evaluate consumer behavior | Generic models                           | Generic models                   |
|                                     | Pointers to and information about existing customers |                               |                               |
| After-purchase service and evaluation | Ordering of product or service  
                                        | Customer support via e-mail and newsgroups  | Electronic cash and virtual banking; wireless payment |
|                                     | Arrangement of delivery  |                                            | PayPal                           |
|                                     |                         |                                            | Logistics providers and package tracking |
|                                     |                         |                                            | Discussions in newsgroups          |
|                                     |                         |                                            | Answer function in LinkedIn       |
PLAYERS IN THE CONSUMER DECISION PROCESS

- Initiator
- Influencer
- Decider
- Buyer
- User

(Source: Turban et al., 2010)
ONE-TO-ONE MARKETING

- Match products (services) with individual consumers

**EXHIBIT W4.2.1 From Mass Marketing to Segmentation to One-to-One**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mass Marketing</th>
<th>Market Segmentation</th>
<th>Relationship Marketing (One-to-One)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactions</td>
<td>Usually none, or one-way</td>
<td>Usually none, or with a sample</td>
<td>Active, two-way</td>
</tr>
<tr>
<td>Focus</td>
<td>Product</td>
<td>Group (segment)</td>
<td>Customer-focused (one)</td>
</tr>
<tr>
<td>Recipient</td>
<td>Anonymous</td>
<td>Segment profiles</td>
<td>Individuals</td>
</tr>
<tr>
<td>Campaigns</td>
<td>Few</td>
<td>More</td>
<td>Many</td>
</tr>
<tr>
<td>Reach</td>
<td>Wide</td>
<td>Smaller</td>
<td>One at a time</td>
</tr>
<tr>
<td>Market Research</td>
<td>Macro in nature</td>
<td>Based on segment analysis or demographics</td>
<td>Based on detailed customer behaviors and profiles</td>
</tr>
</tbody>
</table>

(Source: Turban et al., 2010)
EXHIBIT W4.2.2  The New Marketing Model

Marketing/Advertising
Chosen to Best
Serve/Reach Customer

"Four P’s"
(Product, Place,
Price, and
Promotion)
Updated Uniquely
to Customer

Customer Receives
Marketing Exposure

Customer Decides on
Marketing Medium for
Response

Customer Profiled Based
on Behavior; Customer
Segmentation Developed

Customer Makes
Purchase Decision

Database Update

Detailed Transaction/
Behavior Data Collected

(Source: Turban et al., 2010)
PERSONALIZATION, LOYALTY, SATISFACTION, AND TRUST IN EC

(Source: Turban et al., 2010)
PERSONALIZATION, LOYALTY, SATISFACTION, AND TRUST IN EC

• personalization
  The matching of services, products, and advertising content with individual consumers and their preferences.

• user profile
  The requirements, preferences, behaviors, and demographic traits of a particular customer.

(Source: Turban et al., 2010)
Major strategies used to compile user profiles

- Solicit information directly from the user
- Observe what people are doing online
  - cookie
- Build from previous purchase patterns
- Perform marketing research
- Make inferences
  - behavioral targeting
    - The use of information collected on an individual’s Internet browsing behavior to select which advertisements to display to that individual.

(Source: Turban et al., 2010)
CUSTOMER LOYALTY

• e-loyalty
  Customer loyalty to an e-tailer or loyalty programs delivered online or supported electronically.

(Source: Turban et al., 2010)
Customer Satisfaction in EC

Information Quality
- Accuracy of Content
- Up-to-Date Content
- Information Presentation (Visual representation of products)
- Completeness of Content (Detailed description of products)

System Quality
- Privacy and Security
- Simple Design
- Ease of Navigation
- Ease of Use
- Consistency of Web Site

Service Quality
- Flexibility (Billing and Delivery Option)
- Timeliness of Order Delivery
- Accuracy of Order Delivery
- Condition of Products Received
- Responsiveness
- Fairness of Policies and Procedures
- Empathy (Compensation and Apologies)

(Source: Turban et al., 2010)
TRUST IN EC

• Trust

  The psychological status of willingness to depend on another person or organization.

(Source: Turban et al., 2010)
EC Trust Models

Trustworthiness of Internet Merchant
- Competency
- Benevolence
- Integrity
- Security Control
- Privacy Control

Trustworthiness of Shopping Channel
- Reliability
- Understandability
- Security and Privacy
- Payment and Logistics

Structural Assurance
- Business Culture
- Consumer Protection
- Effective Law

Demographics, Previous Experience, Personality, Cultural Difference

Trust in Internet as Shopping Channel

Trust in Internet Merchant

Trust in Business and Regulatory Environments

EC Trust

(Source: Turban et al., 2010)
MARKET RESEARCH FOR EC

• METHODS FOR CONDUCTING MARKET RESEARCH ONLINE
• WHAT ARE MARKETERS LOOKING FOR IN EC MARKET RESEARCH?
• MARKET SEGMENTATION RESEARCH

(Source: Turban et al., 2010)
EXHIBIT 4.2  Online Market Research Process

Steps in Collecting Market Research Data
1. Define the research issue and the target market.
2. Identify newsgroups and Internet communities to study.
3. Identify specific topics for discussion.
4. Subscribe to the pertinent groups; register in communities.
5. Search discussion group topic and content lists to find the target market.
6. Search e-mail discussion group lists.
7. Subscribe to filtering services that monitor groups.
8. Read FAQs and other instructions.

Content of the Research Instrument
1. Post strategic queries to groups.
2. Post surveys on a Web site.
3. Offer rewards for participation.
5. Post relevant content to groups, with a pointer to a Web site survey.
6. Post a detailed survey in special e-mail questionnaires.
7. Create a chat room and try to build a community of consumers.

Target Audience of the Study
1. Compare audience with the target population.
2. Determine editorial focus.
3. Determine content.
4. Determine what Web services to create for each type of audience.

(Source: Turban et al., 2010)
<table>
<thead>
<tr>
<th>Market Segmentation</th>
<th>Bases/Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic</td>
<td>Region; size of city, county, or Standard Metropolitan Statistical Area (SMSA); population density; climate; language.</td>
</tr>
<tr>
<td>Demographic</td>
<td>Age, occupation, gender, education, family size, religion, race, income, nationality, urban (or suburban or rural).</td>
</tr>
<tr>
<td>Psychographic (lifestyle)</td>
<td>Social class, lifestyle, personality, activities, VALS typology (see sric-bi.com/VALS/presurvey.shtml).</td>
</tr>
<tr>
<td>Cognitive, affective, behavioral</td>
<td>Attitudes, benefits sought, loyalty status, readiness stage, usage rate, perceived risk, user status, innovativeness, usage situation, involvement, Internet shopping experience.</td>
</tr>
<tr>
<td>Profitability</td>
<td>Valued customers are placed in a special category.</td>
</tr>
<tr>
<td>Risk score</td>
<td>Low risk customers are placed in a special category.</td>
</tr>
</tbody>
</table>
MARKET RESEARCH FOR ONE-TO-ONE

• Direct Solicitation of Information
• Data Collection in the Web 2.0 Environment
• Observing Customers’ Movements Online
• Collaborative Filtering

(Source: Turban et al., 2010)
Direct Solicitation of Information

• Implementing Web-Based Surveys
• Online Focus Groups
• Hearing Directly from Customers

(Source: Turban et al., 2010)
Data Collection in the Web 2.0 Environment

• Discussion forums
• polling
• blogging
• chatting
• live chat
• Chatterbots
• collective wisdom for intelligence
• find expertise
• folksonomy
• data in videos, photos, and other rich media

(Source: Turban et al., 2010)
Observing Customers’ Movements Online

• transaction log
  A record of user activities at a company’s Web site.

• clickstream behavior
  Customer movements on the Internet.

• Cookies, Web Bugs, and Spyware
  – Web bugs
    Tiny graphics files embedded in e-mail messages and in Web sites that transmit information about users and their movements to a Web server.
  – spyware
    Software that gathers user information over an Internet connection without the user’s knowledge.

• Analysis of B2C Clickstream Data

(Source: Turban et al., 2010)
Analysis of B2C Clickstream Data

• **clickstream data**
  Data that occur inside the Web environment; they provide a trail of the user’s activities (the user’s clickstream behavior) in the Web site.

• **Web mining**
  The use of data mining techniques for discovering and extracting information from Web documents and Web usage.

(Source: Turban et al., 2010)
Collaborative Filtering

• A market research and personalization method that uses customer data to predict, based on formulas derived from behavioral sciences, what other products or services a customer may enjoy; predictions can be extended to other customers with similar profiles.
  – Legal and Ethical Issues in Collaborative Filtering

(Source: Turban et al., 2010)
LIMITATIONS OF ONLINE MARKET RESEARCH AND HOW TO OVERCOME THEM

(Source: Turban et al., 2010)
BIOMETRIC MARKETING

• Biometrics

An individual’s unique physical or behavioral characteristics that can be used to identify an individual precisely (e.g. fingerprints).

(Source: Turban et al., 2010)
WEB ADVERTISING

• OVERVIEW OF WEB ADVERTISING
  – interactive marketing
    Online marketing, facilitated by the Internet, by which marketers and advertisers can interact directly with customers, and consumers can interact with advertisers/vendors.

(Source: Turban et al., 2010)
EXHIBIT 4.3 The Advertising Cycle

Need assessment; why advertise

Conceive high-level concept, initial planning

Determine the targets; mass, group, individuals

Measure and analyze results

Target

Launch the campaign

Determine the method (e-mail, banner, etc.) How to . . .

(Source: Turban et al., 2010)
WEB ADVERTISING

• ad views
  The number of times users call up a page that has a banner on it during a specific period; known as impressions or page views.

• button
  A small banner that is linked to a Web site. It can contain downloadable software.

(Source: Turban et al., 2010)
WEB ADVERTISING

• **click (click-through or ad click)**
  A count made each time a visitor clicks on an advertising banner to access the advertiser’s Web site.

• **click-through rate**
  The percentage of visitors who are exposed to a banner ad and click on it.

• **click-through ratio**
  The ratio between the number of clicks on a banner ad and the number of times it is seen by viewers; measures the success of a banner in attracting visitors to click on the ad.

(Source: Turban et al., 2010)
WEB ADVERTISING

- **conversion rate**
  The percentage of clickers who actually make a purchase.

- **CPM (cost per thousand impressions)**
  The fee an advertiser pays for each 1,000 times a page with a banner ad is shown.

- **hit**
  A request for data from a Web page or file.

(Source: Turban et al., 2010)
WEB ADVERTISING

• **page**
  An HTML (Hypertext Markup Language) document that may contain text, images, and other online elements, such as Java applets and multimedia files. It can be generated statically or dynamically.

• **stickiness**
  Characteristic that influences the average length of time a visitor stays in a site.

(Source: Turban et al., 2010)
WEB ADVERTISING

• **unique visits**
  A count of the number of visitors entering a site, regardless of how many pages are viewed per visit.

• **visit**
  A series of requests during one navigation of a Web site; a pause of a certain length of time ends a visit.

(Source: Turban et al., 2010)
Advertising Online and Its Advantages

• Cost
• Richness of format
• Personalization
• Timeliness
• Location-basis
• Linking
• Digital branding

(Source: Turban et al., 2010)
ONLINE ADVERTISING METHODS

- BANNERS
- POP-UP AND SIMILAR ADS
- E-MAIL ADVERTISING
- CLASSIFIED ADS
- SEARCH ENGINE ADVERTISEMENT
- VIRAL MARKETING AND ADVERTISING

(Source: Turban et al., 2010)
ONLINE ADVERTISING METHODS: BANNERS

• banner
  On a Web page, a graphic advertising display linked to the advertiser’s Web page.

• keyword banners
  Banner ads that appear when a predetermined word is queried from a search engine.

• random banners
  Banner ads that appear at random, not as the result of the user’s action.

(Source: Turban et al., 2010)
ONLINE ADVERTISING METHODS: BANNERS

• Benefits of Banner Ads
  – The major benefit of banner ads is that, by clicking on them, users are directly transferred to the shopping page of an advertiser’s site.
  – The ability to customize them for individual surfers or a market segment of surfers.

• Limitations of Banner Ads
  – The major disadvantage of banners is their cost
  – A limited amount of information can be placed on the banner

(Source: Turban et al., 2010)
ONLINE ADVERTISING METHODS: POP-UP AND SIMILAR ADS

• pop-up ad
  An ad that appears in a separate window before, after, or during Internet surfing or when reading e-mail.

• pop-under ad
  An ad that appears underneath the current browser window, so when the user closes the active window the ad is still on the screen.

(Source: Turban et al., 2010)
ONLINE ADVERTISING METHODS: E-MAIL ADVERTISING

• E-Mail Hoaxes
• Fraud
• E-Mail Advertising Methods and Successes

(Source: Turban et al., 2010)
ONLINE ADVERTISING METHODS: SEARCH ENGINE ADVERTISEMENT

• URL Listing

• Keyword Advertising

• Search Engine Optimization (SEO)
  The craft of increasing site rank on search engines; the optimizer uses the ranking algorithm of the search engine (which may be different for different search engines) and best search phases, and tailors the ad accordingly.

• Google: The Online Advertising King

(Source: Turban et al., 2010)
ONLINE ADVERTISING METHODS:
Viral marketing

• Viral marketing
  Word-of-mouth method by which customers promote a product or service by telling others about it.

(Source: Turban et al., 2010)
ADVERTISING IN SOCIAL NETWORKS AND THE WEB 2.0 ENVIRONMENT

• social network advertising

Online advertising that focuses on social networking sites.

(Source: Turban et al., 2010)
Types of Social Network Advertising

• Direct advertising that is based on your network of friends
• Direct advertising placed on your social network site
• Indirect advertising by creating “groups” or “pages”
• Sponsored Reviews by Bloggers

(Source: Turban et al., 2010)
ADVERTISING IN SOCIAL NETWORKS AND THE WEB 2.0 ENVIRONMENT

• ADVERTISING IN CHAT ROOMS AND FORUMS

• VIDEO ADS ON THE WEB AND IN SOCIAL NETWORKING
  – Video Ads
  – Tracking the Success of an Online Video Campaign
    • Web video analytics
      A way of measuring what viewers do when they watch an online video.

• VIRAL MARKETING IN SOCIAL NETWORKS

(Source: Turban et al., 2010)
ADVERTISING STRATEGIES

• Affiliate Marketing
A marketing arrangement by which an organization refers consumers to the selling company’s Web site.

• ADS AS A COMMODITY
(PAYING PEOPLE TO WATCH ADS)

• SELLING SPACE BY PIXELS

(Source: Turban et al., 2010)
ADVERTISING STRATEGIES

• PERSONALIZED ADS AND OTHER PERSONALIZATION
  – Webcasting
    A free Internet news service that broadcasts personalized news and information, including seminars, in categories selected by the user.

• ONLINE EVENTS, PROMOTIONS, AND ATTRACTIONS
  – Live Web Events

(Source: Turban et al., 2010)
SPECIAL ADVERTISING TOPICS

• PERMISSION ADVERTISING
  – spamming
    Using e-mail to send unwanted ads (sometimes floods of ads).
  – permission advertising (permission marketing)
    Advertising (marketing) strategy in which customers agree to accept advertising and marketing materials (known as “opt-in”).

(Source: Turban et al., 2010)
SPECIAL ADVERTISING TOPICS

• ADVERTISEMENT AS A REVENUE MODEL
• MEASURING ONLINE ADVERTISING’S EFFECTIVENESS
• MOBILE MARKETING AND ADVERTISING
  – mobile advertising (m-advertising)
    Ads sent to and presented on mobile devices.

(Source: Turban et al., 2010)
SPECIAL ADVERTISING TOPICS

• AD CONTENT

• SOFTWARE AGENTS IN MARKETING AND ADVERTISING APPLICATIONS

• localization

The process of converting media products developed in one environment (e.g. country) to a form culturally and linguistically acceptable in environments outside the original target market.

(Source: Turban et al., 2010)
EXHIBIT W4.17.1 What Is Involved in Localization?

Variables Considered in Localization

- Branding (names, language)
- Store formats (size, layout)
- Merchandise spaces and assortment (size, color, style, flavor, package design)
- Pricing (range, changes, financing)
- Promotions (types, duration, discount level)
- Vendor policies
- Management programs
- Store service levels
- Vendor services
- Operating policies

Location Variables

- Consumer characteristics
- Special demand drivers
- Competitor characteristics
- Company’s own stores’ characteristics versus others

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MANAGERIAL ISSUES

1. Do we understand our customers?
2. Who will conduct the market research?
3. Are customers satisfied with our Web site?
4. How can we use social networks for advertising?
5. How do we decide where to advertise?
6. What is our commitment to Web advertising, and how will we coordinate Web and traditional advertising?

(Source: Turban et al., 2010)
MANAGERIAL ISSUES

7. Should we integrate our Internet and non-Internet marketing campaigns?
8. What ethical issues should we consider?
9. Are any metrics available to guide advertisers?
10. Which Internet marketing/advertising channel should you use?

(Source: Turban et al., 2010)
References

• Turban et al., Introduction to Electronic Commerce, Third Edition, 2010, Pearson