

ERRATA TO THE 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, AND 8<sup>th</sup> PRINTING OF  
INDUSTRIAL ORGANIZATION: THEORY & APPLICATIONS

*by*  
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## Chapter 3: Technology, Production, Cost, And Demand

p.48, Figure 3.2: The  $AC$  curve (bottom row) is drawn under the assumption that  $0 < \gamma < 1/2$ . Observe that when  $\gamma = 1/2$ ,  $AC = WQ$  constituting a ray from the origin. When  $1/2 < \gamma < 1$ ,  $AC$  is concave to the origin (rather than convex).

## Chapter 6: Markets For Homogeneous Products

p.109, Proposition 6.2(2): It is useful to assume that  $\lambda \geq 2$  (instead of  $\lambda \geq 1$ ). Under  $\lambda = 1$ , undercutting by firm 1 may leave it with zero profit.

## Chapter 7: Markets For Differentiated Products

p.134. Bottom left side of Figure 7.1 should be:

COURNOT (Subsec. 7.1.1) and BERTRAND (Subsec. 7.1.2)

p.142, 1st line below Proposition 7.4: "It is amazing?" should be: "Is this amazing?"

p.144, equation (7.13) should be:

$$\sum_{i=1}^N p_i q_i \leq I \equiv L + \sum_{i=1}^N \pi_i(q_i).$$

p.145, (7.14) should be:

$$p_i(q_i) = \frac{1}{2\lambda\sqrt{q_i}}$$

## Chapter 8: Concentration, Mergers And Entry Barriers

p.179, 3rd line below Proposition 8.3: "...firm  $B$  or firm 1..." should be: "...firm  $B$  or firm 2..."

p.189, equation (8.17): replace  $-k_1$  by  $-\bar{k}_1$ .

## Chapter 9: Research and Development

p.227, Proposition 9.1 should read:  $E\pi^S(1) > E\pi^S(2)$  but  $E\pi_k(2) > 0$ , when....

## Chapter 10: The Economics Of Compatibility And Standards

p.272: Equations (10.16) and (10.17) hold for the two equilibria in which all three consumers are served (see Proposition 10.13 on p.271). However, for the third equilibrium, in which consumer  $AB$  is not served, equations (10.16) and (10.17) should be modified to  $CS^I = 0$  and  $W^I = 4\lambda$ , respectively.

## Chapter 11: Advertising

p.289, Figure 11.2: The graph of  $1/[\delta(1-\delta)]$  should be upward sloping for all  $\delta > 0.5$ , and slope  $+\infty$  at  $\delta = 1$ .

p.289 (bottom 2 lines) and p.290 (first 2 lines): This discussion should be rewritten since in the specified range firms overadvertise (not underadvertised as stated).

p.294, part 2 of the proof, line 2: Replace  $\pi^1(I, P) = N$  by  $\pi^1(P, I) = N$ .

## Chapter 12: Quality, Durability, And Warranties

p.314, equation (12.8), line 2 should be:

$$\pi_B(a, b) = \frac{1}{b-a} \left[ \frac{2(b-a)^2}{3} - \frac{4(b-a)^2}{9} + \frac{2(b-a)^2}{9} \right] = \frac{4(b-a)}{9}.$$

p.316, top line should be: “and who desires...”

p.320, Proposition 12.6: Third line should be:  $I \leq \max \{2(v^N - v^O); v^N\} - v^O$ . That is, the cost of innovation should not exceed the *difference* between profit made from selling the new technology and the profit that could be made without innovation.

## Chapter 13: Pricing Tactics: Two-Part Tariffs And Peak-Load Pricing

Section 13.3: Peak-load pricing: The analysis is conducted under the assumption that low-season demand is “significantly” lower than the high-season demand. This assumption must be added to Proposition 13.4 on page 350. In future editions, I will add an analysis of peak-load pricing when

the two demand functions are similar, in which case capacity should be treated as a “public” good.

p.351, line 2: Replace “determined by is...” by “determined by...”

p.354, line 16: The assumption  $c_D \geq c_N$  is not needed. Replace it with  $c_D \geq 0$  and  $c_N \geq 0$ .

p.354, equation (13.11) should be:

$$TC(\delta) = r \max \left\{ \hat{\delta} - a, b - \hat{\delta} \right\} + (\hat{\delta} - a)c_N + (b - \hat{\delta})c_D.$$

p.354, last line should be:  $K = (b - a)/2$  instead of  $K = (a + b)/2$ .

p.355, Figure 13.6 should be:

$$\frac{(b - a)(r + c_D + c_N)}{2}$$

p.357, Proposition 13.7, the signs of the  $r$  should be reversed (twice) so that

1. under vertical differentiation

$$\hat{\delta} = \min \left\{ \frac{\beta(1 + b) + r + c_D - c_N}{2\beta}; \frac{a + b}{2} \right\}, \quad \text{and}$$

2. under horizontal differentiation

$$\hat{\delta} = \max \left\{ \frac{\beta(1 + b) - r + c_D - c_N}{2\beta}; \frac{a + b}{2} \right\}.$$

p.358. Proof: the signs of the  $r$  should be reversed (twice) so that

$$\beta(1 + b) - 2\beta\hat{\delta} = -r + c_N - c_D.$$

$$\beta(1 + b) - 2\beta\hat{\delta} = +r + c_N - c_D.$$

## Chapter 14: Marketing Tactics: Bundling, Upgrading, And Dealerships

p.369, line –4: Replace “the North America” by “North America”

p.375, Line –6: Replace  $\equiv$  by  $=$ .

p.375, line –5 should be “... if and only if  $w > \frac{1}{2}$ . Hence,”

p.375, bottom line should be: “That is,  $\bar{s} < s^*$ .”

p.376, line 3 should be: “That is,  $\bar{s} > s^*$ .”

p.376, line 8: Replace “...to overtaken” by “...to be overtaken”

p.378–379, the sentence before (14.16) should be: “...we know that a necessary condition (but not sufficient) for a new edition to be introduced in period 2 is”

p.379, equation (14.17) should be:

$$\pi = n(p_1 - c) + \pi_2 = \begin{cases} n(V - c) + n(V - c) - F & \text{if a new edition is introduced} \\ n(V + c - c) + 0 & \text{if no revision is made.} \end{cases}$$

p.387, line –5:  $p_i^D = B - F$  should be  $p_i^D = B$ .

p.388, line 6:  $[0, 1/2)$  should be: selling in the neighborhood of consumer 1.

p.388, line 7:  $[1/2, 1]$  should be: selling in the neighborhood of consumer 2.

## Chapter 16: Price Dispersion And Search Theory

p.424, line 17: “In addition, on average, half of...” should be “In addition, on average, 1/3 of...”.

p.426, top line: Delete “since we assumed that  $H > 3L$ .” That is,  $p_D < p_{ND}$  always holds.

p.427, Assumption 16.1: Add: From consumers’ point of view, the number of stores of each type is “large.” Consequently, from consumers’ perspective, the price distribution associated with the next search does not vary during the sequential search process.

p.431, subsection 16.2.2, line 9: Replace “when he or her” with “when he or she”

## Chapter 17: Miscellaneous Industries

p.444, Proposition 17.2: Replace “increases exponentially” with increases quadratically”

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