1. Top Three Variables Contributing to Lead Conversion

Based on the logistic regression model built in the case study, the top three variables that contribute most towards the probability of a lead getting converted are:

1. **Lead Profile: Potential Lead**:
- Importance: 1.417619
- Impact: Positive
2. **Total Time Spent on Website**:
- Importance: 1.001547
- Impact: Positive
3. **Last Notable Activity: Email Opened**:
- Importance: 0.011637
- Impact: Positive

4. These variables have the highest coefficients in the logistic regression model, indicating their strong influence on the likelihood of a lead converting.

2. Top 3 Categorical/Dummy Variables to Focus On

To increase the probability of lead conversion, X Education should focus on the following top three categorical/dummy variables:

1. **Lead Profile: Potential Lead**:
- Leads categorized as "Potential Lead" are highly likely to convert. Efforts should be made to identify and nurture these leads.
2. **Last Notable Activity: Email Opened**:
- Leads that have opened emails show engagement and interest. Targeting these leads with follow-up communications can increase conversion rates.
3. **Lead Source: Direct Traffic**:
- Direct traffic indicates leads who are directly visiting the website, likely showing a high level of interest. These leads should be prioritized for follow-up.

3. Strategy for Aggressive Lead Conversion with Interns

During the two-month period when interns are available, X Education should employ the following strategy to aggressively convert leads:

1. **Identify High-Probability Leads**:

- Use the logistic regression model to identify leads with a high probability of conversion (leads predicted as 1).

2. **Segment Leads by Engagement Level**:

- Prioritize leads based on engagement metrics such as "Total Time Spent on Website" and "Last Notable Activity."

3. **Allocate Interns to High-Probability Leads**:

- Assign interns to make phone calls and follow-ups with leads that have high lead scores.

4. **Personalized Communication**:

- Provide interns with scripts and information to tailor their communication based on the lead's activity and interests.

5. **Monitor and Adjust**:

- Continuously monitor the conversion rates and adjust strategies based on the effectiveness of the interns' efforts.

4. Strategy for Minimizing Useless Phone Calls

When the company reaches its quarterly targets and wants to minimize unnecessary phone calls, the following strategy should be employed:

1. **Strictly Prioritize High-Score Leads**:

- Focus only on leads with the highest scores (e.g., top 10-20% of leads based on lead scores).

2. **Analyze Lead Engagement**:

- Prioritize leads who have shown high engagement metrics such as multiple visits, high time spent on the website, and positive last notable activities (e.g., "Email Opened").

3. **Automated Follow-Ups**:

- Use automated email follow-ups for leads with medium to low scores, reserving phone calls for only the highest priority leads.

4. **Review and Feedback Loop**:

- Regularly review the effectiveness of the communication strategy and gather feedback to refine the criteria for phone calls.

5. **Dynamic Adjustment**:

- Be flexible and adjust the strategy based on ongoing performance and changing business needs.