Food Commercials and Kids:
Characterizing Advertising Content of Children’s Online Television Programs

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Introduction
• Obesity among children ages 6-11 has tripled from 6.5% in 1980 to 19.6% in 2008 (Ogden et al., 2010).
• The Institute of Medicine found that food marketing during children’s television significantly affects children’s ages 2-11 food preferences, requests and short-term eating habits.
• Some have studied the food marketing such as banner advertisements on popular children’s websites
• No research has studied food marketing during online children’s television programs.

Objective
• Our purpose is to sample and ascertain the composition of commercials during popular children’s television programming available on the internet.
• We also document the characteristics of the episodes to determine if related factors predict the percentage of food advertising

Data Collection Method
• 3 episodes were randomly selected from each network per recording period from a pre-determined list of shows that had evidence of popularity and with full episodes available online across 4 networks.
  • Cartoon Network
  • Nickelodeon
  • Disney
  • 4Kids
• Before each recording session, computers were cleared of personal information via Ccleaner. Episodes were recorded with Atube Catcher
• Recording took place in mid-March to early April 2011
• Recording sessions occurred from 3-5pm or 7-9pm to reflect popular viewing times among children.
• Inter-rater reliability was unnecessary since all advertising was coded collectively after recording

Sample Summary
Total of 81.57 hours of programs and advertising
• 77.51 hours of programming (95.2%)
• 3.83 hours of commercials (4.7%)

The equivalent of 206 half hour episodes were recorded with an average length of 22 min 35 sec
• 49 from Cartoon Network
• 55 from Nickelodeon
• 54 from Disney
• 48 from 4Kids

Composition of Episodes:
• 49% & 51% were recorded in the afternoon (3-5pm) & evening (7-9pm), respectively
• Parental Ratings: 13.9% were TV-Y7, 30.8% were TV-Y7-FV, 38.5% were TV-G, and 16.8% were TV-PG
• 46.2% were recorded during the weekend
• 63% were cartoons, 37% were live-action
• 23.6% of episodes were from programs that appear on Nielsen’s top 50 episodes among children 6-11 years old
• Prior investigation showed no evidence that episode release date dictated the amount of advertising

Model
In order to predict the amount of food advertising as a percentage of total commercial advertising we model:
%Advertising = f (cartoon, evening, weekend, Nick, Disney, 4Kids, NielsenTop50)

Variable Definition: Characteristics of the Episode
• FoodPercent: The percentage of food commercials advertising food products or food companies (e.g. fast food, cereal, etc.)
• Include: Includes the omitted network, Cartoon Network
• Nick: 0, if Live Action; 1, if Animation
• Evening: 0, if recorded from 3-5pm; 1, if recorded from 7-9pm
• Weekend: 0, if recorded Monday-Friday; 1, if recorded during weekend
• NielsenTop50: 1, if program appears on Nielsen’s Top 50

Preliminary Tobit Model

<table>
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<th>Parameter Est.</th>
<th>Std Error</th>
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<td>NielsenTop50</td>
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• The corresponding author can be reached at Jerrod.pen@uky.edu

Selected References

Conclusion
Commercials as a whole are significantly less frequent during online children’s programming compared to advertising on television.
• Previous study found commercial advertising made up 9 min 56 sec per hour of television (Powell, Szczypta & Chaloupka, 2007).
• Our sample showed 2 min 49 sec per hour of online episode viewing (excludes bumpers & transition time)
• Like television, food makes up the largest portion of commercial advertising during online kids’ programming.
• The amount of food advertising is closely linked to the program’s affiliated network.
• Children will see the least amount of commercial food advertising by watching an episode online in full screen mode.
• Future Direction of research should consider the nutritional value of visible foods and the banner ads that are visible while watching an episode and additional children’s programs outlets.