The Language of Independent Intermediaries: How Astronauts’ Tweets Support Entrepreneurial Opportunities to Transform Space into A New Marketplace

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Introduction
• An entrepreneur can easily be seen as the only actor associating with successful commercialization of an opportunity. However, it may not always be the case.
• Research Question: How do independent intermediaries support entrepreneurial opportunities to create new market categories?

Methodology
• Collected tweets from 36 NASA astronauts

<table>
<thead>
<tr>
<th>Number of Astronauts</th>
<th>Total Tweets</th>
<th>Total Retweets</th>
<th>Total Likes</th>
<th>Time Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>19,115</td>
<td>4,673,885</td>
<td>11,105,959</td>
<td>2009-2017</td>
</tr>
</tbody>
</table>
• Applied text analysis using Python

Findings
• Astronauts, as intermediaries, act as a catalyst for supporting entrepreneurial opportunity to form a new market category of space tourism in the following four ways:

  - Constructing value propositions
    • Astronauts’ tweets indicate two key attractions in space: microgravity and earth-viewing. They are the key services that the supply side should fulfill.
  - Establishing boundaries
    • Astronauts’ five-stage space experiences (training, liftoff, in-space, reentry, and reflection) build boundaries for what space tourism business can provide.
  - Educating consumers
    • New terms generated by astronauts, for example spaceart and space flower, bring novel meanings to average words and construct new realities. It is a process of education to the public about a new market category: space tourism.
  - Forming awareness
    • On average, one tweet from an astronaut attracts 245 retweets and 581 likes from the public. There is no better ambassador in terms of space travel.

Conclusion
• The language of intermediaries supports market creation by establishing boundaries and constructing values, and educating potential consumers about this emerging market category.

Impact
• By indicating the importance of astronauts’ experiences in space industrialization, this research supports the mission of AAS to advance space initiatives and grow the space community.

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