The Role of Signaling Identity in the Adoption of Personal Technologies

By Alessandro Arbore, Isabella Soscia and Richard Bagozzi
Cool enough??!

“Judge Colin Birss declared that Galaxi Tab was not “cool enough” to be confused with the iPad (Arthur, 2012). These words undergird a legal decision concerning the patent and intellectual property dispute between Apple and Samsung in which Samsung was decreed the legal victor”
Our proposal addressed a long-standing research question in information systems (IS): how can we accurately explain users’ acceptance of information technology (IT) innovations?

We propose that a need exists to redefine the concept of “image” by specifying symbolic aspects of adoption and their relationship to decisions to adopt information appliances.
Symbolic Value

The definition of symbolic value in consumption behavior should not neglect the notion of consumer needs (Smith & Colgate, 2007). Park, Jaworski, and MacInnis (1986) identify three basic consumer needs:

1. **functional needs** (i.e., those that satisfy consumption-related problems; e.g., a GPS meets a functional need when it provides localization);

2. **experiential needs** (i.e., those that express a desire for products that provides sensory pleasure and cognitive stimulation; e.g., kinesthetic enjoyment provided by home video game consoles);

3. **and symbolic needs** (i.e., those that empower self-enhancement, role position, group membership, or ego-identification; e.g., acquiring and expressing “coolness” by using an iPad).
Symbolic Values in IT studies

- Status/prestige
- Need for uniqueness

...but “status” and “uniqueness” seem to be merely particular antecedents of particular identity-signaling goals related to personal self-identity.
Hong and Tam (2006) model

- Need for uniqueness
- Social influence
- Intention
- Perceived monetary costs
- Perceived ease of use
- Perceived service availability
- Perceived enjoyment
- Age
- Social influence
- Need for uniqueness
- Perceived usefulness
- Intention
Re-specification of Hong and Tam (2006) model
We asked a total of 351 Italian participants to fill out the questionnaire containing the independent, mediating, and dependent variables for the measurement models. We then analyzed information from 345 completed questionnaires: 176 men, 169 women. The average age was 21 (SD = 1.57).

We measured all research variables using multiple-item scales adapted from prior studies (we made minor wording changes to tailor them to the mobile TV context). All responses were recorded on seven-point scales (1 = strongly disagree; 7 = strongly agree).

We tested hypotheses by using confirmatory factor analysis and structural equations models with LISREL.
Results

![Diagram of the model showing relationships between variables such as age, intention, perceived usefulness, perceived ease of use, perceived monetary costs, perceived service availability, perceived enjoyment, need for uniqueness, and social influences. The R² values for each variable are also indicated.]

**Table of Correlation Coefficients (R²):**

- Age: 0.19***
- Intention: 0.24***
- Perceived usefulness: 0.48***
- Perceived ease of use: 0.26***
- Perceived monetary costs: 0.17**
- Perceived service availability: ns
- Perceived enjoyment: 0.61***
- Need for uniqueness: 0.08*
- Social influences: 0.24***
Results

<table>
<thead>
<tr>
<th>Intention</th>
<th>Perceived usefulness $R^2 = .69$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived ease of use $R^2 = .10$</td>
<td></td>
</tr>
<tr>
<td>Social influence $r = .12**$</td>
<td></td>
</tr>
<tr>
<td>Perceived monetary costs</td>
<td></td>
</tr>
<tr>
<td>Perceived service availability $ns$</td>
<td></td>
</tr>
<tr>
<td>Perceived enjoyment $ns$</td>
<td></td>
</tr>
<tr>
<td>Social influence $r = .12**$</td>
<td></td>
</tr>
<tr>
<td>Age $ns$</td>
<td></td>
</tr>
<tr>
<td>Perceived enjoyment $ns$</td>
<td></td>
</tr>
<tr>
<td>Perceived service availability</td>
<td></td>
</tr>
<tr>
<td>Perceived monetary costs $ns$</td>
<td></td>
</tr>
</tbody>
</table>

**Significance levels: *** p < 0.001, ** p < 0.01, * p < 0.05, ns = not significant.
Conclusions

“status” and “uniqueness” only partly define personal identity and, in the process, fail to fully convey one’s broader self-identity

- Instead of focusing on usefulness or ease of use alone, firms should activate key identity associations to foster symbolic drivers.

- At the very outset, risky negative associations with personal technologies should be identified through qualitative research. This is critical in order to foretell and combat harmful mental links that could potentially represent symbolic barriers to adoption (e.g., “mobile TVs are for geeks”). In Italy, for example, there is strong cultural resistance to adopting automatic transmissions in cars because they are mentally associated with the thought that “people who purchase automatic transmissions as less capable drivers”.