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Teaching what Society Needs: "Hacking" an Introductory Marketing Course with Sustainability and Macromarketing

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Abstract

Marketing classes are often focused on the micro level, failing to account for wider societal issues. In this paper, we argue for the inclusion of a wider macro-sustainability focus, one that “hacks” marketing education. With that objective in mind, we developed and delivered an introductory marketing course that integrated both the micro and the macro, thus infusing the course with macro-sustainability. This was done through an “expanded voice” perspective that included alternate complementary micro and macro class sessions while using a traditional managerial marketing textbook supplemented by macro-sustainability materials. We also integrated a controversies approach to support discussion and learning. We taught this course to 150 undergraduate students and conducted both quantitative and qualitative assessments of the course, including comparing results with an “unhacked” marketing course. Findings indicated increased awareness of macro-sustainability topics and movement on appreciation of sustainability and the role marketing can have in achieving this awareness. Finally, we offer a model of how marketing classes at all levels can be “hacked” with a macro-sustainability approach.

Keywords

Pedagogy, macromarketing, sustainability, macro-sustainability, marketing education

Introduction

This paper reports on how a team of authors from six countries maintained a macromarketing lens on the subject of sustainability, threading related challenges and strategic demands throughout an existing introductory marketing course. Sustainability focuses on the continued long-term support and quality of human life, ecosystems, and the

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3 wider biosphere (e.g., Brown et al., 1987). Sustainability is “an important issue afforded
4 considerable thought within the domain of macromarketing” (Mittelstaedt et al., 2014, p. 1).
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7 Macromarketing—typically described as the study of the connections between markets,
8 marketing, and society—includes a wide range of broader sustainability topics, including
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10 aspects such as the climate crisis, distributive justice, marketing systems, market failures,
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12 quality-of-life, and marketing’s impact on socio-economic development.
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17 We therefore share the view of Shultz and Peterson (2019) who argue that a
18
19 macromarketing lens is imperative if achievements and strategies with regard to sustainability
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21 are to be properly designed by marketers. Sustainability aspects are complex in nature,
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23 requiring a systemic view (Mittelstaedt et al., 2014). The complex systems in which
24
25 sustainability issues emerge and where action is desired requires a macro view in order to
26
27 identify and introduce solutions. In this way, “hacking” an introductory marketing course to
28
29 infuse sustainability necessarily involves macromarketing. To represent this focus in our
30
31 current effort, we introduce the term macro-sustainability, which we define as the attainment
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33 of sustainability within the provisioning actions of individuals, companies, organisations, and
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35 governments *as well as* their collective effects in marketing systems, in a way that fully
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37 integrates societal, economic, and environmental factors.
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42 This is particularly evident when we acknowledge that marketing in the 21st century is
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44 increasingly connected and systemic in nature, with threats from climate change, over-
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46 consumption, and inequality, being pressing issues. As Layton (2016) reminds us, marketing
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48 is a social science concerned with delivering collective social and economic value in
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50 collaborative and prescriptive contexts. It is increasingly dynamic and evolving, and no
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52 longer solely a managerial business function. Marketing students need the knowledge and
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54 skills to act upon systemic issues and their critical linkages with marketing. An introductory
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56 marketing course cannot manage complex connected systemic issues, such as climate change
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3 and inequalities, solely through micro, short-term, managerial, and operational activities and
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5 decisions. These are macromarketing concerns and must be treated accordingly.
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8 Business schools arguably are behind other educational areas where sustainability is
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10 already an interdisciplinary offering. Pedagogically, the fundamental customer orientation
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12 underlying any introductory marketing course with its concepts of a company and a customer
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14 as independent agents arguably has to be “hacked”. “A single-minded focus on the customer
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16 to the exclusion of other stakeholders” has become the new marketing myopia (Smith,
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18 Drumwright & Gentile, 2010, p.4; see also Kull, Mena & Korschun, 2016). Challenging this
19
20 myopia, and taking a broader perspective acknowledging a more complex world with a
21
22 variety of stakeholders, is necessary in the future. To cope with the demands of our time, we
23
24 must incorporate a “customer *and*” approach: customer *and* stakeholders, customer *and*
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26 society, customer *and* the planet. This integrated approach more sharply contrasts with
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28 traditional marketing approaches where the customer is “king” and profitably satisfying
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30 consumer demands is supreme. The integrated approach requires both sustainability
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32 objectives and broader systemic pedagogies, hence our use of the macro-sustainability term.
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37 Despite this obvious need, supply is still lacking. While marketing courses
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39 emphasizing sustainability aspects do exist, these tend to be offered as specialized elective
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41 courses later in the degree. Mainstay textbooks have lengthened over the years to include
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43 related chapters, but ethics and sustainability are often taught as add-ons towards the end of a
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45 traditional introductory course, if at all. Macromarketing is rarely taught. Our integrated
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47 approach—spanning the micro and macro—ensures that students are critically introduced to a
48
49 macro-sustainability approach deeply and early in their education, thus providing them with
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51 an additional lens they can use throughout the rest of their undergraduate careers. Further, our
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53 offering addresses the increasing demand for such perspectives by incoming undergraduates
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3 and prepares them for the complicated strategic challenges that lie ahead (e.g., Finch, Nadeau
4 & O'Reilly, 2013).

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8 In what follows, we first review examples of relevant past pedagogical efforts. Then,
9
10 we describe our approach to “hacking” an introductory marketing course. Subsequently, we
11
12 offer a qualitative and quantitative assessment of our approach, followed by a discussion of
13
14 findings and a conclusion.
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16 17 **Literature Background** 18

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20 How macromarketing might fit into the classroom has been the focus of several
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22 papers. For example, Shapiro et al. (2021) argue that macromarketing provides an essential
23
24 addition to marketing education given its unique perspective at the nexus of marketing and
25
26 society, and suggests that instructors introduce macromarketing and sustainability through
27
28 engaging activities, such as controversy debates, marketing system modeling, developing
29
30 social marketing plans, and conducting sustainable redesigns of products.
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33 Likewise, literature on how sustainability might be integrated within a marketing
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35 curriculum exists, with much of it appearing in previous issues of the *Journal of Marketing*
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37 *Education* (e.g., Bridges & Wilhelm, 2008; Borin & Metcalf, 2010; Bascoul et al., 2013;
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39 Markley Rountree & Koernig, 2015). Collectively, this literature addresses how the
40
41 marketing curriculum both could and should be retooled to support fluency in sustainability
42
43 among marketing students. One such approach is to create elective courses related to
44
45 sustainability marketing (Bridges & Wilhelm, 2008). Markley Rountree and Koernig (2015),
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47 for example, developed two undergraduate sustainable development courses and suggested
48
49 they include attention to non-profit firms and social enterprises. They advocated for
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51 experiential visits to such organizations, and, bridging with international marketing concepts,
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53 suggested short-term study abroad trips. In another example, Bridges and Wilhelm (2008)
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55 proposed a sustainable marketing MBA-level course and highlighted how sustainability
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3 topics can be integrated into the traditional 4Ps. Their suggested “P” topics included closed-
4 loop product development and standards (product); full-cost environmental accounting,
5 externalities, and micro-financing (price); supply chain audits and reverse logistics (place);
6 and greenwashing and encouraging demand (promotion). Additional consumer behavior-
7 related topics such as green segmentation and de-consumption were also discussed.
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14 An alternative approach was proposed by Bascoul et al. (2013) who aim “to open
15 students’ horizons and make them realize that there is a larger world outside the marketplace
16 context, on which marketing strongly impacts” (p. 177). In this way, sustainability can be
17 integrated into traditional courses, either topic-by-topic or as a separate in-course module,
18 integrating “elements of sustainability into required principles or capstone marketing
19 courses” (Bridges & Wilhelm, 2008, p. 39). For example, Borin & Metcalf (2010) suggest
20 learning activities that include understanding the sustainability-oriented ISO-14000 standard;
21 following a sustainable design process for new product development; and encouraging a field
22 trip to a local landfill. They encourage students to answer web-based surveys about their
23 environmental impact or record their own consumption, ask them to think about their own
24 sustainability goals, and encourage discussion of life cycle issues.
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40 Critically, integrating sustainability topics into marketing classes can be challenging
41 for instructors who must teach traditional content while also fostering an understanding of
42 sustainability (Bacon, 2015; Markley Rountree & Koernig, 2015). Indeed, popular marketing
43 textbooks often either fail to weave sustainability and marketing together (DeMoss &
44 Nicholson, 2005) or do so in a superficial way (Bridges & Wilhelm, 2008). Teaching about
45 the product lifecycle, for example, is often limited to marketplace factors and does not
46 incorporate sustainability considerations, such as how a product is disposed of once no longer
47 needed (Bascoul et al., 2013).
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3 Further, most such courses are currently aimed at MBA students (Bridges & Wilhelm,
4 2008). Instead, instructors could “offer classes very early in students’ college careers so as to
5 give them ‘sustainability-colored glasses’ through which they should view all of their other
6 materials” (AACSB International Doctoral Education Task Force, 2008, p. 15 as cited in
7 Markley, Rountree and Koernig, 2015, p. 6). In other words, what is needed is to integrate
8 sustainability into entry-level marketing courses.
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12 Other concerns are that instructors might not know enough about sustainability
13 (Bridges & Wilhelm, 2008) and that moving towards more sustainability in the classroom
14 may place a burden “on departmental and university resources, faculty interest and expertise,
15 and the level of student interest in the topic, among other factors” (Bridges & Wilhelm, 2008,
16 p. 34). To tackle these challenges, marketing instructors need to “reevaluate our role and our
17 focus” (Bridges & Wilhelm, 2008, p. 44) towards inclusion of sustainability (Bascoul et al.,
18 2013). More recent discussions of both the difficulties and benefits of introducing
19 sustainability throughout a wide array of marketing courses are also available (Kemper et al.,
20 2019; Upadhyaya et al., 2019).
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25 In response to these concerns and to expand on past suggestions, we created an
26 integrated course for second-year undergraduate students that adds to—or “hacks”—a
27 traditional introductory marketing offering. We did this by utilizing what we call an
28 “expanded voice” model that introduced students to a variety of sustainability issues from a
29 macromarketing perspective. This macro-sustainability perspective offers context and
30 questions about traditional marketing principles so that students understand marketing
31 strategies within the larger system. By incorporating macro-sustainability into the curriculum
32 and utilizing a controversies approach into chapter-specific marketing lessons, we offer
33 students and interested instructors a way to broaden traditional marketing learning regarding
34 the world’s most pressing challenges.
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3 “Hacking” marketing education to infuse sustainability and macromarketing reflects
4 that these are not yet part of the standard curriculum. Indeed, “hacking” suggests that one has
5 to devise innovative ways for those topics to find their place in the curriculum, which is our
6 aim with this course. We thus use the term in its original sense, as taking apart what we want
7 to understand and improve by keeping what should be kept and replacing what needs to be
8 replaced (Levy, 1984). The outcome of our endeavor is the course presented below.
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16 17 **The “Hacked” Marketing Principles Course** 18

19 Key to the design of this course was determining what skills we wish students to have
20 upon its completion. We collectively decided on learning outcomes (see Table 1) whereby
21 students should not only master the content of a standard introductory marketing course, but
22 also have an important contextual appreciation for the larger system in which marketing
23 operates. This appreciation should mean that students not only understand and can apply
24 traditional micro level concepts and tools, but can also identify interlocking and mutually
25 interdependent factors which drive how marketing impacts society and what changes may be
26 needed.
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37 Specifically, we chose to present the traditional (micro)marketing content, followed
38 by an “expanded voice” approach to encompass broader macro-sustainability topics. We
39 challenged students to develop critical thinking skills by contrasting and exploring such
40 topics through a series of controversy-based exercises (see Table 2). We maintained the basic
41 structure from a well-known textbook (Kotler and Armstrong’s *Principles of Marketing:*
42 *Global Edition*), while offering a complementary expanded perspective that transcends more
43 traditional managerial marketing. This “expanded voice” infused standard topics, such as
44 pricing strategies, and segmentation, with macro-sustainability considerations. Weaving
45 together traditional managerial marketing with macro-sustainability considerations meant that
46 students reflected on (a) what the traditional perspectives tell them would work and (b) how
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3 the “expanded voice” perspective shows them that things could be done differently. In this
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5 way, we sought to equip students with an expanded toolbox that can be used in future courses
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7 and indeed throughout their careers.
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10 Our course responds to calls for more holistic approaches to integrating sustainability
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12 into marketing education (Bridges & Wilhelm, 2008). While students still learn the traditional
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14 materials, they also learn about the limitations related to such a narrow approach and how to
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16 cultivate possible systemic solutions towards a more sustainable future. This made the course
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18 actionable and accessible for early business students, and easily adaptable by instructors who
19
20 currently teach using the traditional approach. The structure of our course addresses the bulk
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22 of Bloom’s taxonomy of learning objectives (see Armstrong, n.d.) in that students were
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24 challenged to remember and understand core materials, and also to apply, analyze, and
25
26 evaluate them by presenting and critiquing “expanded voice” ideas.
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30 We adapted an existing introductory marketing course for second-year undergraduate
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32 students at a leading public university in Turkey. (Students attending this institution score in
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34 the top one percent on the national university exam). The university is among the most liberal
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36 in Turkey and aims to create change-makers in that society, where students are open to and
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38 encouraged to think about new ideas. Enrollment in the class reached just over 150 students,
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40 about 80 percent of whom were business majors taking it as a required course, while the
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42 others took the class for credit towards a minor program. The students are predominantly
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44 Turkish citizens and take the course in English, all having passed English proficiency exams.
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46 Students have a standard load of six courses a semester. The lead instructor taught this course
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48 several times previously, following the tradition of the managerial-oriented curriculum and
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50 textbook. He welcomed the opportunity to rethink the course design in a way that surpassed a
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52 strictly managerial focus.
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3 The 14-week course was taught via a mixture of remote synchronous and
4 asynchronous formats (given restrictions from the Covid-19 pandemic). Each week, the
5 students listened to two recorded lectures: (1) managerial principles of marketing as outlined
6 in the assigned textbook chapters, a topic prepared by the home instructor, and (2) macro-
7 sustainable dimensions as taught by either the home instructor or one of the five co-authors
8 acting as guest instructors (totaling two “expanded voice” sessions each). The lectures
9 averaged about 20 minutes each with brief supplementary material also assigned.
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19 In addition to listening to the two recorded videos, students were expected to prepare
20 for the synchronous session by reading the corresponding textbook chapter(s), as well as
21 reviewing the supplemental materials related to each “expanded voice”. These included Ted
22 Talks, YouTube videos, news and academic articles. Class met weekly for an online
23 synchronous session, this supported by both home and guest instructors. The first part of the
24 75-minute session was used to reinforce the managerial principles of the week. The second
25 part of the session explored the “expanded voice” perspective on the week’s topics. Breakout
26 rooms were also utilized to have groups discuss a controversy posed by the juxtaposition of
27 the traditional and the “expanded voice” of marketing (see Table 2). The class typically
28 ended with a class-wide discussion of that week’s controversy.
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42 The controversies approach constitutes an essential component of this course. The use
43 of controversies in marketing education has long been encouraged, especially for macro-
44 sustainability topics (e.g., Shapiro, 2008; Shapiro et al., 2021). Controversies exist “when one
45 person’s ideas, information, conclusions, theories, or opinions are incompatible with those of
46 another person, and the two seek to reach an agreement” (Johnson & Johnson, 1979, p. 53).
47 They incorporate different stakeholder perspectives. Given that we provided students with
48 both a traditional and an “expanded voice”, a controversies approach enabled students to
49 consider differing perspectives and develop their own opinions about them. An example of a
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3 controversy used in this setting is “The integration of drones in delivery of purchased
4 products is [not] beneficial.”
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8 Accordingly, the controversies allowed us to stretch the students to think more deeply
9 about the complexity of each controversy. In groups of approximately four students each,
10 students were asked to continue the controversy discussion beyond the synchronous class
11 session by developing a written position or response regarding that week’s controversy. In
12 alternating weeks, groups would either write an original position (arguing for one side of the
13 controversy or the other) or write a response to the position of another group, both capped at
14 a maximum of 400 words.
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18 In order to preserve anonymity, groups chose a team name, and a teaching assistant
19 helped to randomly distribute the written positions to the responding groups. These responses
20 were then sent to the group which wrote the original position as critical peer feedback. Each
21 of the groups also received detailed feedback from the instructors on three controversies
22 during the semester, while their other submissions were checked for satisfactory
23 completeness. To conclude the course and for their final project, the groups picked one of the
24 previously discussed controversies and, utilizing the peer and instructor feedback, presented a
25 10-minute video further developing arguments related to the controversy in a creative way.
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29 As shown in Table 2, the course had one midterm and one final exam. The exams
30 were split between answering multiple choice questions and written essay responses.
31 Multiple choice questions covered both micro and macro level perspectives of the course.
32 Likewise, essay questions were designed for students to demonstrate an understanding of the
33 contrasting perspectives; the final essay required taking a position on a controversy, as the
34 students had practiced throughout the course. Because of the virtual semester due to Covid-19
35 restrictions, both exams were online and open-note, but with a challenging time limitation.
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39 < Insert Table 1 About Here >
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Evaluation Method

By expanding the traditional teaching of marketing principles, our “hacked” introductory marketing course sought to fulfill the learning outcomes (Table 1) and enables students to (a) appreciate the larger marketing system, (b) identify the wide array of factors that influence how that marketing system (dis)serves its many stakeholders, and (c) argue effectively about these differing perspectives.

Effectively assessing this requires attention to both qualitative and quantitative measures, and even then, some outcomes cannot be measured in the short-term (Sterman et al., 2015). For our assessment, we chose pre- and post-course surveys containing a mixture of qualitative and quantitative questions.

Three sets of quantitative measures were included in our survey. In the first, we used Polonsky, Kilbourne and Vocino’s (2014) dimensions of the Dominant Social Paradigm, shown by the authors to apply to multiple country contexts, as a gauge of students’ perceptions of the current market system. The authors provide multi-item scales for three key dimensions – economic growth, technology and political – with the latter divided into two components of individualism and private property (see Table 3). All are measured on a 7-point Likert scale. These dimensions, both individually and jointly as the DSP, are expected to relate negatively to pro-environmental behavior (Polonsky, Kilbourne & Vocino, 2014). Including them in our assessment was intended to test whether our “hacking” induced changes to the participants’ views of the DSP, an effect which could then lead to other macro-sustainability-oriented behavioral changes.

< Insert Table 3 About Here >

The second measure included in our study was Flynn, Goldsmith and Eastman’s (1996) measure for opinion leadership (see Table 4). This construct captures the degree to

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3 which a person is influential on the views of others, both aware of and engaged with that
4 influence. Scale items were adapted to reflect our purpose—“sustainable products” or
5 “sustainability”—as encouraged by the authors and measured on a 7-point Likert scale. We
6 included this construct to see whether the experiment changes one’s sense of influence about
7 macro-sustainability topics.
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17 The third set of measures included in our pre- and post-surveys was a series of 5-point
18 scale questions about the level of awareness the participant had of twelve macro-oriented
19 topics. The question asked respondents to “indicate your awareness of each of the following
20 issues on the scale provided. This is about your degree of awareness, not your positive or
21 negative opinion.” Table 5 provides the list. These topics were broadly, rather than
22 specifically, aligned with the “expanded voice” presentations, and intended to support
23 assessment of our learning outcomes. Because topics were less specific than the focus of the
24 “expanded voice” segments, a change in student awareness could potentially indicate that
25 students developed their ability to draw connections between their expanded training and
26 these larger topics.
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42 Beyond these quantitative measures, the surveys asked pre- and post-semester open-
43 ended questions regarding the definition of sustainability and marketer responsibility.
44 Students were asked to provide general demographics including gender, major and year born,
45 along with unrelated questions intended to help create an anonymous but unique identifier for
46 each student, a unique ID that could link their pre- and post-survey responses (this due to
47 human subjects research constraints on using student names or official identifiers).
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55 Finally, the survey was distributed to students in the experimental class and others in a
56 control class. The latter was an introductory marketing class taught at the same university
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3 over the same time frame and remote-delivery model. It had a total of approximately 75
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5 students and was taught by a different instructor. Most students in the control group course
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7 were enrolled in an industrial design major, unlike the experimental class which consisted
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9 mostly of business students. Unfortunately, these two differences (instructor and major) could
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11 not be avoided.
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14 Findings

15 Quantitative Results for the Experimental Group

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18 Table 6 shows the sample sizes for each of our four surveys. Reliability statistics were
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20 calculated for the constructs used. For two of Polonsky, Kilbourne and Vocino's (2014)
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22 dimensions of the DSP – economic growth and technology – as well as Flynn, Goldsmith and
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24 Eastman's (1996) opinion leadership construct, Cronbach's alpha was consistently acceptable
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26 (0.6-0.7) or very good (above 0.8). The private property and individualism dimensions–
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28 derived by Polonsky, Kilbourne and Vocino from the original political dimension–showed
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30 lower reliability scores. We include all in our tables for informational value, particularly
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32 given their collective connection to the DSP itself.
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40 In Table 7, we show pre- and post-experiment values for the major constructs, along
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42 with p-values from a t-test of comparisons of averages. These results, which pertain only to
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44 the experimental condition, indicate that there was no statistically significant change in the
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46 participants' views of the Dominant Social Paradigm or opinion leadership, although the
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48 change was directionally appropriate in three of the four dimensions of the DSP. That is, if
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50 our course was persuasive in showing students that the current market system faces
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52 significant challenges from a macro-sustainable perspective, we would expect that the current
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54 DSP may seem less suitable to students in the post-survey. We have directional but not
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56 conclusive statistical evidence of that persuasive achievement.
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< Insert Table 7 About Here >

By contrast, we can point to an increase in awareness of each of the 12 topics presented in broad terms to students, seven of which are statistically significant changes at the 95% level of confidence.

Experimental Effect

To properly account for the influence of our pedagogical approach on these measures, the experimental effect must be calculated from the comparison of experimental and control groups. Ideally, this means comparing average individual post- minus pre-treatment values for each condition such that any difference in that change between the experimental and control groups can be properly attributed to the treatment (our pedagogical change). To compare only average post values, for example, would ignore individual differences in pre values.

As mentioned earlier, a unique ID was developed from survey responses with the purpose of allowing us to merge the pre- and post-survey datasets so that actual changes in scores could be computed. Unfortunately, despite requests in the post-survey to not purposely change what logically would be stable responses from the pre-survey, these Unique IDs did not line up for the full set. In fact, only 30 participants in the experimental condition and 14 in the control group lined up. Our experimental effect could only be calculated on those smaller numbers, so they are not shown here. In summary, they point to some increased awareness of issues among the experimental group compared to the control group, and no difference in scores on the DSP constructs or opinion leadership. Unfortunately, this small sample does not provide sufficient basis for a more detailed quantitative assessment of our effects on the students.

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3 Nonetheless, our quantitative results provide insight into the change one might expect
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5 from this “hacking” effort, despite weak statistical significance. Perhaps different measures
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7 would have proved more helpful. However, other factors may have influenced our ability to
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9 detect such changes more significantly. The course was taught at an institution considered to
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11 be liberal and open to new ideas, and as such, we may have detected a higher macro-
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13 sustainability starting point than is typical at other institutions, especially regarding views of
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15 the DSP. As such, both our experimental and control groups may have had heightened
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17 awareness of the topics we addressed. This explanation would need to be confirmed by
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19 running our pre-survey at a diverse array of educational institutions.
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24 More likely, our results may be indicative of the time frame needed to detect changes
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26 of this sort statistically, as argued by Sterman et al. (2015). Indeed, Holton & Clarke (2006)
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28 argue for an evolutionary scaffolding approach to transforming student thinking, whereby
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30 students are supported – as in our structured connections between micro & macro topics and
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32 the controversy assignments – while first learning, and then scaffolds are removed as students
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34 build their independent critical thinking skills over time. We may also have simply begun a
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36 process that takes repeated engagement for the deeply ingrained beliefs (e.g., regarding the
37
38 DSP) to be seriously questioned. The evidence we have suggests that such transformation did
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40 begin with our students, and this is particularly evident from our qualitative analysis.
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44 **Qualitative Analysis**

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46 Two open-ended questions were asked in both pre- and post-course surveys, and
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48 student responses were analyzed using Leximancer, a text mining software that provides
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50 automated content analysis using deep learning and natural language processing. This tool
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52 has been used to analyze text in business education papers (e.g., Frias & Popovich, 2020), as
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54 well as many other publications in business. The software identifies concepts within the text
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56 and provides insights into patterns and relations between texts, including dominant themes. It
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3 does so while removing non-relevant words, such as conjunctions and words with two letters.
4
5 The resulting analysis of the dominant words and their connections is visually displayed in a
6
7 conceptual map, organized by importance. Bigger circles and brighter colors indicate more
8
9 dominant concepts, while closely related concepts are grouped together. This approach
10
11 provides insights into the shift in themes and relationships over the semester.
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14
15 The first question posed to students was “In your own words, define ‘sustainability’
16
17 and describe how important you believe ‘sustainability’ to be.” The second open-ended
18
19 question posed to students was “In your view, what could marketers do to improve the
20
21 society we live in? (Provide as many examples as you like.)”. Prior to the Leximancer
22
23 analysis, the text of student responses was cleaned. Some words were removed (e.g.,
24
25 “sustainability” as it was used to structure the answer of the question by many), while other
26
27 words were changed into correct, consistent spelling (e.g., aligning US and UK spelling).
28
29 Shorthand words were also spelled out (e.g., “smt” became something), while the few
30
31 Turkish language answers were translated to English. The resulting data was then analyzed in
32
33 Leximancer, where related words were combined (e.g. “need + needs”, “product +
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35 products”).
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41 Three main findings arise from the analysis of the first question about the definition of
42
43 sustainability. The Leximancer theme map can be found in Figure 1 for both the pre- and
44
45 post-answers (using 33% theme size).
46

47 <Insert Figure 1a and Figure 1b About Here >
48

49 Finding 1: In the pre-semester answers, marketing topics are not dominant. In the
50
51 post-semester answers, a link to marketing is present in the identifiers of *product*,
52
53 *consumption*, *products*, *production*, and *use*. The inclusion of marketing-related identifiers,
54
55 and those in relation with the *planet* and *environment*, suggest that students have forged a
56
57 stronger link of the role of marketing in sustainability over the semester. For example, the
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3 concept of *planet* linked to *production* and *products*, as well as *use* in the more dominant
4
5 post-semester conceptual maps, suggests a growing understanding of a relationship between
6
7 marketing and sustainability. To illustrate, a student wrote at the end of the semester, “All of
8
9 our operations both business operations and personal consumption, should be adjusted
10
11 according to the concept of sustainability,” while another noted that sustainability “should
12
13 become one of the most important factors in the management of production processes.”
14
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17 Finding 2:
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20 In the pre-semester answers, passive and more negative concepts, such as *limited* and
21
22 *long* are centralized, where students refer to “limited resources” or “limited sources” pre-
23
24 semester, while, post-semester, there was a direct link of *future* to *resources*, which are
25
26 specific aspects related to our *planet*, linked to *use*. For example, one student notes post-
27
28 semester that with “improvements on [sic] technology we should be able to recycle our
29
30 wastes in order to use them for new productions. In this way, our limited resources will last
31
32 longer”. These findings suggest that the idea of sustainability may have shifted from being an
33
34 acknowledged difficult, and perhaps rather abstract, problem, to one with potential actions
35
36 available as solutions. Indeed, in the pre-semester maps, the *world* was linked to *possible*,
37
38 while post-semester *world* is linked to *live*. For example, a student wrote, “the idea that
39
40 sustainability gives to me is to live today so as to have a better place to live tomorrow” in a
41
42 post-semester response.
43
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46
47 Further, while *ability* was present pre- and post-semester, it was not as prominent in
48
49 the pre-semester, as evident in the conceptual maps. These findings suggests that, rather than
50
51 students seeing themselves as passively hoping for sustainability, there may be a shift for
52
53 some to a more complex framing that involves action, including those of marketers and
54
55 consumers. As one student wrote, “sustainability is how long can the scarce resources... be
56
57 used in production and how long does [sic] those products ... survive in the hands of users
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3 before being a waste in our environment.” Indeed, when looking at the conceptual map at a
4
5 100 percent theme size, the word *means* is linked to *nature* and *sustainability* pre-semester,
6
7 but *means* is linked to *production* and *use* post-semester—both of which are action-oriented
8
9 words.
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12 Finding 3: In the post-semester answers, a wider range of themes had more
13
14 prominence, including *use* and *resources*, and new connections were present. We can see this
15
16 shift in the post-semester map, which includes more diverse aspects such as *nature*, *people*,
17
18 *environment*, and *planet*, in addition to the *world*, as compared to the pre-semester map. A
19
20 student post-semester noted, “sustainability means protecting the environment, future, and
21
22 next generations because if people do not care about sustainability, they will face scarce
23
24 products.” In this way, the findings further suggest students’ ideas of sustainability have
25
26 grown to include a range of more nuanced aspects.
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31 For the second question posed to our students, regarding the role of marketers, three
32
33 main findings emerged from the analysis, as shown in Figure 2 (using 33% theme size).
34

35 <Insert Figure 2a and Figure 2b About Here >
36

37 Finding 1: In the pre-semester answers, the words *stop* and *honest* are dominant
38
39 identifiers, while in the post-semester answers, *improve* and *better* are dominant. For
40
41 example, in the pre-semester, a student wrote, “They should stop promoting lies”, while
42
43 another wrote, “They could stop false advertising and manipulation. They could start being
44
45 completely honest and think about the humans and the world rather than their products first.”
46
47 To contrast this, in the post semester, a student wrote, “marketers have the power to improve
48
49 our society...”, while another student wrote, “They can consider shortage of natural resources
50
51 in the world and they can take an action to improve the society we live in.” This could
52
53 suggest that, at the start of the semester, students framed marketers in a predominantly
54
55 negative light, where marketers have to cease doing what they are doing and/or be honest
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3 about their actions. By the end of the semester, it seems that the students see the (potential)
4 role of marketing in a more positive way, with *improve* linked to *society*, and *better* linked to
5 *world*. Interesting, the word *care* centers in the post-semester answers, related to both *product*
6 and *market*. Overall, the findings suggest students could have a wider appreciation for the
7 potential of marketing in creating a better world.
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14 Finding 2: In the pre-semester answers, while *action* is included, in the post-semester
15 answers, more action words are dominant, including words like *making*, *create*, *aware*, *use*,
16 *focus*, *care*, and *improve*. This suggests that the students have become aware of the range of
17 actions that marketers may pursue. For example, students noted in the post-semester
18 responses that marketers can “create sustainable supply-chains where all stakeholders can
19 benefit”, “create offering[s] for the bottom of the pyramid”, “making great change”,
20 “improve working conditions”, and “focus on overall benefit of society”. This, combined
21 with the inclusion of the word *marketer* in the post-semester answers, potentially indicates an
22 appreciation for the active role that marketers can take in improving society.
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35 Finding 3: Similar to the previous question’s answers, the concept maps show
36 increased connections between concepts and increased inclusion of diverse terms in the post-
37 question answer. This indicates that students have grown in their acknowledgement of new
38 concepts around the role of marketing, including aspects such as *people* (and *stakeholders*)
39 and *profit*. The word *people* post-semester is much more dominant and linked to the word
40 *products* and *companies*, while the word *stakeholder* does not appear pre-semester. To
41 illustrate, in the post-semester, a student wrote that marketers “should be promoting wellness
42 of ALL their stakeholders, which includes not only their consumers or suppliers but also the
43 environment and the people who do not buy their products as well.” As such, the findings
44 indicate that students have a broader appreciation for the potential widening role of
45 marketers.
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3 Taken together, the above findings suggest that the course has shifted the students'
4 appreciation of the range of important actors and elements involved in sustainability and have
5 grown their appreciation for the widening, diverse, and active role marketing could have in
6 creating solutions towards a more sustainable future.
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12 Discussion

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14 Academic marketing is at a pedagogical crossroads that could determine its path for
15 decades. One future scenario would be for marketing education to retain the status quo and
16 thus reinforce the reductionist principles that focus on siloed learning and a static commercial
17 view of marketing. Such a path fails to include a macro-sustainability perspective and would
18 undermine the focus on complex and systematic issues that are critical to creating a more
19 sustainable future. A progressive alternative to the status quo would be to embrace a radical
20 transformation whereby marketing education would reconcile its principles by integrating
21 micro and macro marketing theory with sustainability. This paradigm shift seeks a marketing
22 curriculum that no longer ignores the patterns and associated complexities of relationships
23 between firms, customers, organizations, governments, citizens, communities, societies, and
24 the planet we all inhabit.
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40 Towards this end, we introduce a figure of an expanded macro-sustainability
41 perspective. The interconnected aspects of macro-sustainability, including taking
42 responsibility, recognizing consequences, recognizing complexities, and engaging pro-
43 actively across a wider set of stakeholders, is illustrated in Figure 3. This figure was
44 developed from an analysis of the keywords that the six authors—all experienced
45 macromarketing scholars well-versed in sustainability—used most in their respective
46 “expanded voice” videos, specifically the words of stakeholders, consequences,
47 responsibility, pro-active, and complexity. Taken together, they form elements necessary to
48 embed macro-sustainability into the marketing classroom.
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<Insert Figure 3 About Here >

Our quantitative findings suggest that our approach likely improves awareness of issues and their consequences. This is important as the recognition of consequences is the first step towards *taking responsibility*: Once people know what is happening, it is harder for them to plead ignorance. Our qualitative results suggest that such an approach involves *recognizing complexity*. The “expanded voice” we provided in this course allowed students to recognize a wider set of issues, and to tie these to marketing. A macro-sustainability approach requires *engaging pro-actively* rather than having a reactive perspective, towards a more solution-oriented perspective as was suggested by the qualitative findings. In this, students can and must work (proactively) towards the best possible compromise. (That we will never be able to agree on what “best” means is, in fact, one nuance of complexity.) Finally, taking a macro-sustainability perspective requires that students engage in *recognizing consequences* beyond the organization, instead appreciating a systematic view spanning different stakeholders.

We specifically maintained the micro aspects in our course, as there are merits to both perspectives. The traditional micro approach provides the concrete tools beneficial to engaging in marketing management to provide value to consumers and remain competitive. The expanded macro perspective provides insights into the complexity of the world and the associated consequences and argues for taking responsibility beyond the organization-customer dyad. These two aspects can help students to appreciate the systemic aspects of marketing. Such systemic thinking is needed to tackle sustainability issues.

In sum, our pedagogical approach brought macro-sustainability into the classroom, including through learning outcomes, reading materials, assignments, and assessments, to integrate a broader perspective. It sought to challenge hidden assumptions, increase inclusion of complexity, stress nonlinearity, and foster both critical and complex thinking and local-to-

1
2
3 global decision-making. This approach actively pursued higher-order learning for both
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5 students and instructors. Infusing macro-sustainability into the classroom was supported by
6
7 concerted efforts, described below.
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9 10 **Adapting this “Hacking”**

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12 Our approach to “hacking” an introductory marketing course yielded some valuable
13
14 lessons that will help interested instructors “hack” their own. Our approach included three
15
16 main components, specifically that of alternating traditional classes with the expanded
17
18 perspectives class, offering textbook material plus materials showcasing the expanded
19
20 perspectives, and bridging traditional and expanded perspective through a controversies-
21
22 based approach. We found this combination to be useful to helping students appreciate both
23
24 the macro and the micro lens, and each can be adapted by an instructor to preferred,
25
26 localized, or contemporary factors.
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31 Regarding the weekly “expanded voice” topics, we have shared our videos on the
32
33 Pedagogy Place website¹ for use by interested instructors. Alternatively, instructors may
34
35 recruit their own group of “expanded voice” guest speakers, arranging synchronous visits or
36
37 pre-recorded videos from fellow marketing scholars or practitioners. We would, of course,
38
39 also welcome these and other identified TedTalks and related materials as submissions to
40
41 Pedagogy Place. Such recordings are particularly suitable to courses taught remotely, whether
42
43 fully or partially asynchronous. As time passes, new topics will develop (e.g., virtual reality)
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45 or take on new meaning. Society is certainly not lacking in areas instructors can focus on.
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50 This is particularly true for the controversy component. Instructors can use any of our
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52 posed controversies or develop their own, and they can be used as a one-off activity or made
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54 a major theme throughout the course as we have done. The use of controversies fosters
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56 opportunities for higher order critical thinking skills (evaluating, creating) not normally
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60 ¹ See <http://pedagogy.macromarketing.org/>

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3 associated with large introductory marketing classes better known for lower order thinking
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5 skills (remembering, understanding) (Bloom, 1956).
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8 Indeed, “hacking” a large undergraduate marketing class in this way fosters dialogue,
9
10 discussion, and collective intelligence among students and sets them on a path of lifelong
11
12 learning (Munter, 2002). Passive learning, especially in a large class setting, is an important
13
14 hurdle to overcome, and integrating smaller group discussions can help to address this.
15
16 Furthermore, there is pedagogical value in facilitating a variety of critical thinking
17
18 dispositions (e.g., open-mindedness, inquisitiveness, and skepticism) that smooth the
19
20 student’s transition to later marketing courses and that generate deeper, more integrated and
21
22 collective solutions to complex problems such as sustainability, climate change, pandemics
23
24 and inequalities (Dwyer & Hogan, 2014).
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28 Tactically, the interested instructor may wish to select controversy topics that speak
29
30 more personally to students at their level of development. Our results suggest that those
31
32 which offered tangible connections to students’ lives, such as ones linked to surveillance
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34 capitalism or drone technology, may hold more interest to students than those with less
35
36 consumer orientation such as poverty alleviation. Depending on the students’ educational
37
38 level, this tangibility may facilitate the development of deeper connections between micro
39
40 and macro topics. Similarly, because marketing students are generally pre-conditioned to
41
42 think in terms of business functions, controversy topics that are worded to reflect business
43
44 decision-making may also generate more interest and thus more learning.
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49 However they are chosen by the interested instructor, the “expanded voice” lessons,
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51 supplementary materials, and controversy topics should individually and jointly speak to the
52
53 need to expand on traditional micro-marketing learning. In our case, transitioning students
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55 each week between micro and macro views gave them not the descriptive, lower-order
56
57 “remember” learning characteristics of introductory courses but instead a more complex,
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3 system-oriented view that illustrated how decisions are less straightforward. For example,
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5 students learned not just why packaging decisions are made on certain business criteria but
6
7 how such decisions are really complex once macro-sustainability factors are incorporated,
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9 rather than simple, logical, or rational. Our approach covered the same topics as a standard
10
11 micro-marketing course but fostered a deeper understanding of the many factors which affect
12
13 their implementation by marketing professionals.
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16
17 A question that remains from our approach is how it would translate to a fully in-
18
19 person model of course delivery. We benefitted from the mixture of remote synchronous and
20
21 asynchronous delivery, with recorded guest lectures and live guest speakers from thousands
22
23 of miles away. Arguably, both are still feasible in a regular classroom as long as proper
24
25 technology is available. It is also likely that student breakout sessions to discuss the week's
26
27 controversy topic could be more easily monitored in the classroom, at least in terms of
28
29 avoiding distractions at home. Certainly, supplementary materials are useful independent of
30
31 the delivery mode.
32
33

34
35 While we had the benefit of six professors involved in this endeavor, infusing macro-
36
37 sustainability into the classroom can also be done by just one instructor. For example, that
38
39 instructor could choose to bring in macro-sustainability content in fewer weeks or make it a
40
41 smaller component of the course initially, supported by the material noted above. Since
42
43 student interaction with other faculty and experts is often appreciated, we encourage
44
45 professors to invite guest lecturers into the classroom, something that is becoming easier with
46
47 widespread adoption of remote learning.
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50
51 Our approach does have some limitations. While we have lofty ambitions to infuse the
52
53 entire marketing education curriculum with a macro-sustainability perspective, we recognize
54
55 that refocusing the still-dominant approach to teaching the discipline takes time. Making
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57 progress will depend on the individual instructor following our model and developing content
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3 suitable for their course. Once textbook publishers catch on to the need for macro-sustainable
4 teaching in marketing, some of that may change. Our approach also relied on the expertise of
5 six marketing academics, an opportunity afforded by our previous work together and one that
6 could challenge a sole instructor to replicate. Having our materials available on Pedagogy
7
8 Place is meant to support such instructors.

14 **Conclusions**

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16
17 In summary, our “hacking” of an introductory marketing course was achieved by
18 teaching traditional materials and contrasting them with “expanded voice” ideas from diverse
19 sources. The conventional and expanded were bridged by a controversies approach that
20 encourages students to compare, contrast, and integrate competing perspectives. While we
21 have demonstrated that this approach is suitable for an introductory marketing course, other
22 marketing courses could also be rife for “hacking,” including branding, consumer behavior,
23 and marketing research courses. This may be particularly true for schools which pursue
24 accreditation such as that offered by the Association to Advance Collegiate Schools of
25 Business (AACSB) whose most recent standards refer to the “many ways that curricular
26 offerings can incorporate societal well-being and foster and support students’ ability to have
27 societal impact” (Association to Advance Collegiate Schools of Business, 2020, p. 27). New
28 demands to prepare leaders who are change-makers rather than simply business professionals
29 are likely to grow, not wane.

30
31
32 Our endeavor illustrates an essential first step towards infusing macro-sustainability
33 into the classroom. We look forward to future iterations of our approach, and the results they
34 bring. Indeed, we call upon other marketing instructors to embrace the infusion of macro-
35 sustainability into all marketing courses to make them more relevant and meaningful. Such
36 efforts can be followed over the course of a degree program, to assess their impact.

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38
39 Instructors can contribute to this endeavor by developing and making available their own

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3 courses, learning materials, and assessments through open platforms, such as the
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5 Macromarketing Society's online repository of macromarketing course materials, Pedagogy
6
7 Place. We clearly view the marketing discipline as a focal point for this effort; however,
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9 given the inherent connections between different business disciplines, we also hope that
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11 business and social science instructors outside of marketing will similarly embrace "hacking"
12
13 to address macro-sustainability concerns.
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For Peer Review

Figures

Figure 1a: Leximancer theme map for definition of sustainability: Pre-semester

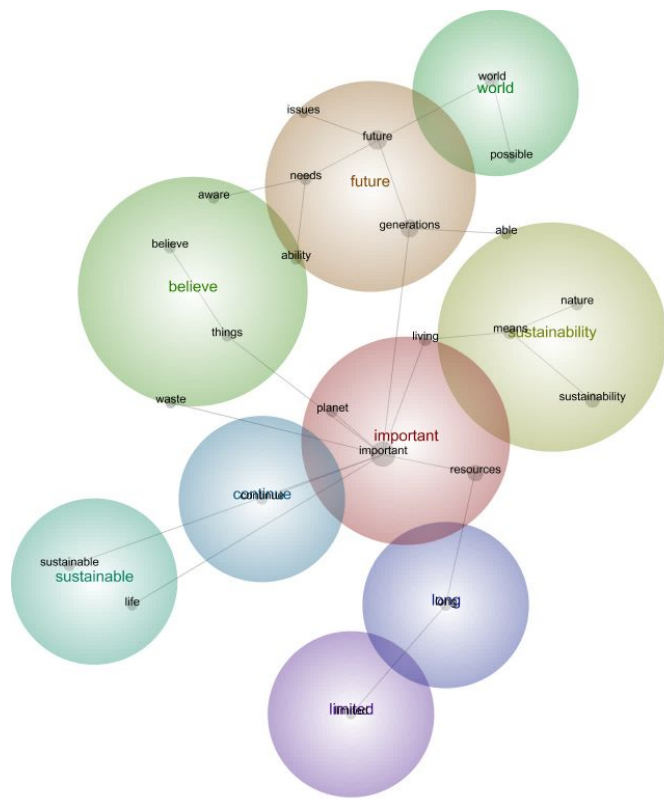
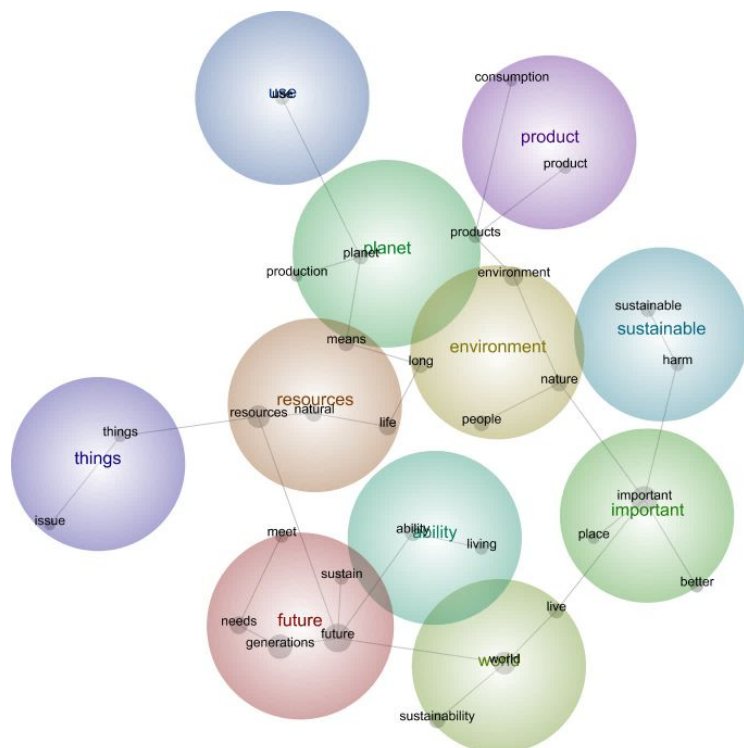


Figure 1b: Leximancer theme map for definition of sustainability: Post-semester



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Figure 2a: Leximancer theme map for role of marketers to improve society: Pre-semester

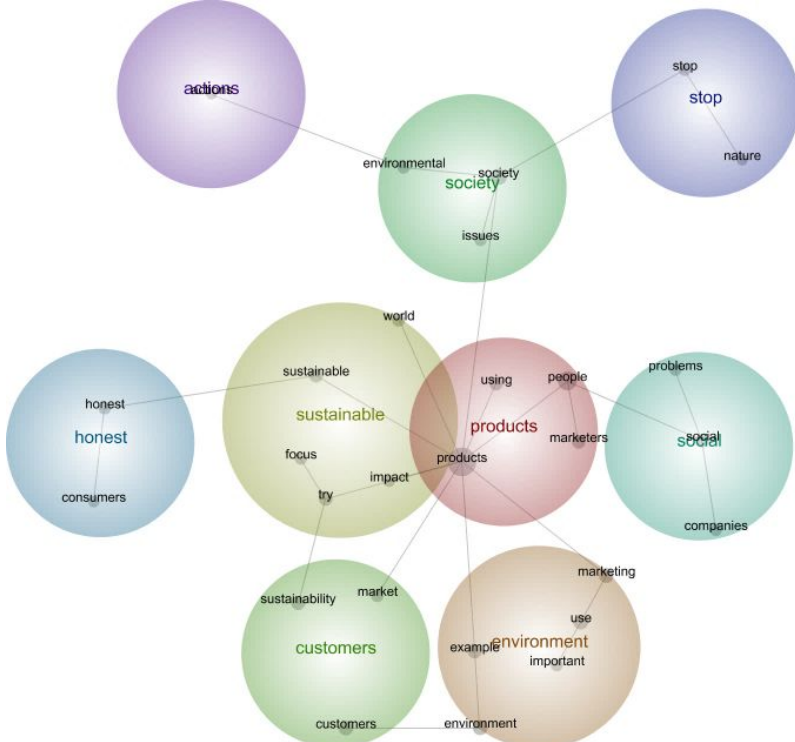


Figure 2b: Leximancer theme map for role of marketers to improve society: Post-semester

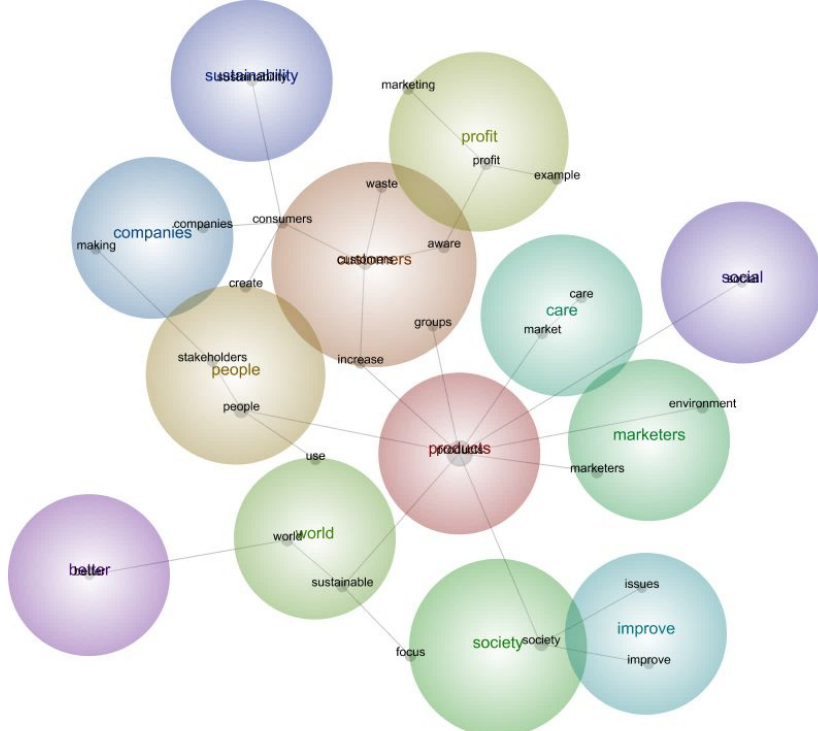
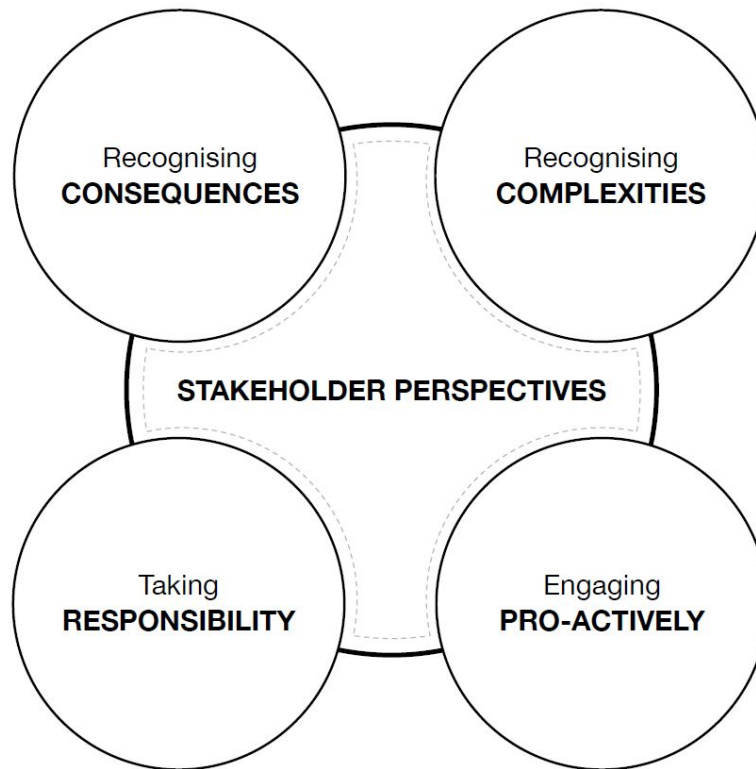


Figure 3: A macro-sustainability perspective



Review

Tables

Table 1: Learning Outcomes

<i>Course, Discipline, and Personal Specific Skills</i>
<ul style="list-style-type: none">• Understand and apply core marketing principles in marketing decision-making and strategy development• Recognize the importance of studying consumer behavior for the effective implementation of the marketing concept• Demonstrate an understanding of marketing not just as a management practice but also its intersection with political, economic, technological, environmental, and societal issues• Demonstrate an understanding of the trade-offs involved in the societal marketing concept and serving multiple stakeholders• Demonstrate the ability to discuss broader social controversies relevant to marketing practice• Demonstrate the practical ability to analyze, communicate, present, and defend ideas in a reasoned and consistent argument• Demonstrate the ability to understand different perspectives of a controversy and take a position

Table 2: Course Topics, Expanded Voices, and Controversy Questions

Week	Topic	Chapter	“Expanded Voice”	Controversy
1	What is Marketing?	1	Introduced the concept of macromarketing, tracing its intellectual development, differentiating it from micro or managerial marketing and identifying the key societal issues macromarketing researchers studied.	n/a
2	Marketing Strategy	2, 18	Discussed the concept of value, going beyond just customer value to appreciate of a wide range of societal benefits and costs throughout the product lifecycle over time with a focus on developing markets.	“Marketers are [not] responsible for the consequences of their actions when developing markets.”
3	Marketing Environment	3	Explored a business's responsibility to all stakeholders, and not just shareholders, and distinguished between a developmental and critical school perspective of markets.	“All stakeholders are (not) the social responsibility of business.”
4	Marketing Research	4	Examined the use of marketing research by firms in relation to linear and non-linear causality for wicked problems and the UN’s Sustainable Development Goals.	“Marketing Research is (not) only about learning how to solve customer problems.”
5	Consumer Markets	5	Discussed how students can take responsibility for a sustainable world in their own consumption choices, rather than blame businesses for not doing more or expect governments to do everything.	“Consumers should (not) lead firms in ethical production and consumption.”
6	Business Markets	6	Explored the complexities associated with large business networks, including with larger businesses dominating smaller ones and the prioritization of profits over people, suppliers, and the environment.	“We must (not) tolerate possible labour or human rights violations within supply chains, (even) if progress is being made to overcome them.”

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7	Midterm Exam		n/a	n/a
8	Segmentation, Targeting, and Positioning	7	Discussed the STP model in relation to marketing’s dominant focus on wealthier markets, and encouraged the acknowledgement of the lower income markets towards social impact and financial sustainability, introducing the concept of social enterprises.	“Marketing is [not] responsible for providing product and services to low income groups and countries.”
9	Product Decisions, New Product Development	8,9	Explored how product design has given little attention to socio-ecological impacts of the product, during manufacturing, distribution, consumption, and disposal, and introduced concepts such as circular economy and clean chemistry.	“Marketing should [not] investigate all potential consequences of new product development.”
10	Pricing	10, 11	Emphasized the use (or misuse) of personal information by large technology firms and the difficulties associated with ‘free’ products and services.	“If you’re (not) paying for it, you’re (not) the customer; (you’re the product being sold).”
11	Place- Marketing Channels	12, 13	Examined the effects of market concentration in supply and retailing, leading to issues of controlled entry, an unlevel ‘playing field’ and narrow definitions of valuable innovation.	“The integration of drones in delivery of purchased products is [not] beneficial.”
12	Promotion- Integrated Marketing Communications	14, 16	Investigated and discussed the integrated nature of an expanded marketing mix including the UN’s SDG #17, that of Partnership.	"There's (not) more to Marketing than the 4Ps."

13	Expanded Voice Review	19, 20	Opened with students being asked for their own list of up to five 'key issues' explored in the course. Then, after the concepts of 'market failure' and 'mixed economy' were introduced, they were asked what changes, if any, needed to be made in Turkey's overall marketing system.	n/a
14	Final Exam		n/a	Final Controversy Project Due

For Peer Review

Table 3: Dominant Social Paradigm Constructs (Polonsky, Kilbourne & Vocino, 2014)

<i>Economic Growth</i>
If the economy continues to grow, everyone benefits.
I prefer a society that tries to increase economic growth.
Economic well-being should not be the goal of society. (r)
The best measure of social progress is economic growth.
The primary role of the government should be to increase economic growth.
<i>Technology</i>
Advancing technology provides us with hope for the future.
The good effects of technology do not outweigh its bad effects. (r)
Humans can control the bad effects of technology.
We should keep developing newer technology.
Technology has made my life worse. (r)
<i>Private Property</i>
Individuals' possessions should be protected as a fundamental freedom.
Individuals should be able to use their possessions as they choose.
The amount of possessions individuals have should be limited. (r)
It is not all right if some individuals have much more possessions than others do. (r)
The government is not responsible for protecting individuals' possessions. (r)
<i>Individualism</i>
We should not limit the government's role in the choices individuals make. (r)
Individual freedom should be the political goal to be achieved in society.
Individuals should be allowed to do what they want if it does not affect others.
The lives individuals choose to live should not be influenced by the government.
The worst measure of social progress is political freedom. (r)

Note: (r) indicates reverse-coded item; adaptation from the strictly positive original

Table 4: Opinion Leadership Construct (Flynn, Goldsmith & Eastman, 1996)

My opinion on sustainable products seems not to influence other people. (r)
When they choose a sustainable product, other people do not turn to me for advice. (r)
Other people rarely come to me for advice about sustainable products (r)
People that I know choose sustainable products based on what I have told them.
I often persuade other people to buy the sustainable products that I like.
I often influence people's opinions about sustainable products.

Note: (r) indicates reverse-coded item, as in original version

Table 5: Awareness Topics

Big business domination of small businesses
Companies cheating on environmental standards
Companies prioritizing profits over people and planet
Consumer actions not reflecting ethical considerations
Market economies not serving all people's interests well
Misuse of private information by business
Negative impacts of marketing on society

Overuse of natural resources by business
Packaging waste and environmental impact
Poverty and efforts to alleviate it
Product prices not reflecting their full cost to the environment
Unequal access to food even in wealthy markets

Table 6: Sample sizes by survey

Survey	Completed all measures	Completed all questions
Experimental Group: Pre-survey	135	124
Experimental Group: Post-survey	129	120
Control Group: Baseline survey	63	60
Control Group: Follow-up survey	44	43

Table 7: Comparison of Averages, Experimental Condition

Construct	Pre-Experiment	Post-Experiment	p-value from t-test
Dominant Social Paradigm (7-point scale)			
Economic Growth	4.464	4.370	0.453
Technology	5.124	4.941	0.132
Private Property	5.159	5.002	0.178
Individualism	5.252	5.292	0.693
Opinion Leadership (7-point scale)	4.533	4.526	0.956
Awareness of Issue (5-point scale)			
Big business domination of small businesses	4.23	4.34	0.107
Companies cheating on environmental standards	4.11	4.29	0.028
Companies prioritizing profits over people & planet	4.36	4.41	0.508
Consumer actions not reflecting ethical considerations	3.60	4.04	<0.001
Market economies not serving all people's interests well	3.98	4.27	0.011
Misuse of private information by business	3.89	4.33	<0.001
Negative impacts of marketing on society	3.86	4.10	0.005
Overuse of natural resources by business	4.19	4.32	0.098
Packaging waste & environmental impact	4.21	4.42	0.016
Poverty and efforts to alleviate it	3.69	4.12	<0.001
Product prices not reflecting full cost to the environment	3.96	4.10	0.161
Unequal access to food even in wealthy markets	4.02	4.20	0.079