Factors Influencing Undergraduate Students Toward Choosing a New Course

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Abstract

Although course choice may shape students' academic futures, with some new courses, few students may register, resulting in course cancellation, lost student opportunities, and wasted faculty effort. This study aimed to explore the attitudes, social norms, and perceived behavioral control factors influencing students' decisions to enroll in a new course. A Qualtrics® survey, using a 7-point Likert scale (strongly disagree to strongly agree) and open-ended questions, was distributed by email to undergraduate students (>18 years) enrolled in the fall 2021 semester within a college of agriculture and life sciences. Of respondents (n = 84), most agreed or strongly agreed that interest in the subject matter and favorable attitudes toward the instructor influenced their decision to enroll in a new course. In the context of social norms, respondents were most influenced by advisor recommendations, a course workload that would not excessively interfere with their social activities, and having friends say positive things about the professor. Within perceived behavioral control, the highest levels of agreement were related to the course helping them complete requirements for their major and graduation. In conclusion, faculty may want to consider influential factors impacting students' new course selection when undertaking course development.

Keywords: undergraduate; course choice; social norms; perceived behavioral control; attitudes

Whether an impetus of passion and interest or an administrative expectation, teaching faculty are tasked with course development. Although required courses are foundational for post-secondary education, faculty, particularly new hires, may be expected, encouraged, or motivated to offer new elective courses, whose development demands considerable time. However, there is a lack of published data on the time demands of new course development and if the fruits of these efforts are realized, i.e., a new course is offered, and students enroll in the initial offering and semesters to follow. Yet, new courses, particularly when focused on timely topics, positively contribute to student development (Russell et al., 2022). For many faculty, developing a new course may be a rewarding experience and, perhaps, one of the reasons they chose to pursue an academic career.

Faculty and administrators are keenly aware that today's student approaches post-secondary education as a consumerist (Sabir et al., 2013). At many institutions, students have an overwhelming array of course options to choose from – the same courses faculty have put significant effort into design and development. However, institutions have not necessarily responded with a marketing approach. Often, students have little more than a brief course description to guide their course choice decision-making, particularly for new course offerings. Surprisingly, little work has been undertaken to explore and identify factors influencing undergraduate course choice, particularly regarding new courses.

Literature Review

New Course Development

New course development ideally balances the needs and interests of the students who will enroll in the course and those of the faculty tasked with its development and design. However, other stakeholders may also influence course development, such as future employers and alums, who advocate for courses they believe will contribute to student employment skills and future career success (Graham et al., 2020). Current events and the political climate also may inspire course development (Tinsley, 2016). Beyond the interrelated interests of stakeholders, new course development is a task that contributes significantly to faculty effort. Thus, it is imperative to assess the demand for a new course and ensure a successful course offering.

The considerable time demands of course development fall upon faculty already tasked with expectations for exceptional teaching, service, and research output in an increasingly competitive environment (Griffith & Altinay, 2020) – a recipe for burnout (Sabagh et al., 2018). Most workload studies of post-secondary faculty measure outputs versus a time-diary approach (O'Meara et al., 2017). When faculty effort has been examined, often scholarly publications and class sections taught are counted, but little work has been undertaken to quantify these efforts (Griffith & Altinay, 2020). In a recently developed framework to assess faculty workload at U.S. universities, researchers concluded that multiple unique course preparations, requiring significant effort, would negatively impact research productivity and institutional grant revenue when work time availability is systematically examined (Griffith & Altinay, 2020).

It is logical to surmise that developing a new course from scratch is arduous and time-consuming. However, the amount of effort may be influenced by the instructor's teaching experience and background in a subject area; less effort may be required if the instructor is well versed in the subject matter compared to developing a new course with minimal background knowledge. Furthermore, such course preparation efforts may be impacted by dynamic factors in the instructional environments (Griffith & Altinay, 2020) and student experiences, as the post-secondary pandemic response has demonstrated (Asgari et al., 2022). Given that faculty at U.S. universities are estimated to work more than 50 hours per week (Branch-Mueller, 2018), an assignment to develop and offer a new course may hinder faculty productivity, particularly for those holding research appointments. This may be particularly the case for female faculty, as they have been shown to receive more effort requests and spend more time on teaching-related activities, advising, and institutional service (O'Meara et al., 2017). With such time constraints, it would be prudent to develop, design, and promote a new course in such a way as to elicit student interest and thereby ensure adequate enrollment and preclude wasted effort.

Although there is a plethora of advice for course design (Reynolds & Kearns, 2017), there is a lack of guidance to ensure the success of a new course, including promotion or "advertising." This is an environment of steep competition for student enrollment between institutions, colleges within institutions, and even among departments within colleges. Identifying factors influencing undergraduate students' decisions to enroll in new courses would inform course development and may provide insight into effective methods to promote such courses to students.

Undergraduate Course Selection

The prevailing purpose of higher education is increasingly focused on the labor market (Brooks et al., 2021). Thus, undergraduate student course choice may be driven by the need for students to complete their programs and ensure employability (Sin et al., 2019) or to help secure graduate or professional program placement. However, a recent European study highlighted that students' interest and their need for personal growth as well as "societal development and progress" as purposes of higher education continue to resonate (Brooks et al., 2021, p. 1379). In the U.S., institutional pressure on time to graduation (Yue & Fu, 2017) may stifle student interest, personal growth, and exploration. Elective course choice may be one remaining outlet for such pursuits.

Careers are driven in large part by a student's choice of major (Hwang, 2019), and thus, significant research has been undertaken to examine which factors determine academic major choice (Baker, 2018; Baker & Orona, 2020), with earnings and perceived ability shown to be primary factors (Wiswall & Zafar, 2015). In contrast, exploration of elective course choice has been limited, although examples from health professional schools provide evidence that elective course choice may impact career trajectory (Baia & Strang, 2012; Schmidt & Brown, 2019; Spooner & Kennedy, 2017). A study conducted in 2018 at a Canadian university examined factors that undergraduate business school students considered when choosing elective courses (Latif & Miles, 2020). The factors students ranked as important or very important regarding professor characteristics were, "Professor is easy to understand," "Professor is knowledgeable," and "Professor is organized." Regarding course characteristics, students noted "Course is interesting" and "Course is useful" as important or very important factors for elective course choice (Latif & Miles, 2020, p. 11). These researchers concluded, not surprisingly perhaps, that professors who were effective communicators and knew their subject areas were important factors informing course choice. Sealey et al. (2018) reported that "personal interest" and what best fits a student's schedule are determining factors for general education elective course selection. At a U.S. public university, Pass et al. (2012) found that students, primarily upper division, preferred courses taken with their friends and taught by instructors they knew. They also considered factors such as testing formats, extra credit activities, class notes, and the availability of old exams to review. Samara (2015) found that for non-science majors, students were influenced to take a science course by their interest in the subject matter and the professor's popularity. Additionally, Ting & Lee (2012) reported that marketing students were influenced by the perceived difficulty of elective courses, personal interest in the subject matter,

and the potential application of a course to their future careers, confirming earlier findings that student interest, as well as perceived relevance of the course for future career opportunities, were driving factors for elective course choice (McGoldrick & Schuhmann, 2002).

Sources of information that students may utilize for course selection include course descriptions, course and professor ratings, and academic advisor advice. However, no course ratings are available for review when a course is first offered, and academic advisors may have no advice. Chaturapruek et al. (2021) used digital trace data supported by a small sample of qualitative student interviews to explore the course choice behaviors of first-year students. Their findings showed that before enrolling in a course, students considered only nine courses – less than 2% of the courses that were appropriate and available for their registration. Thus, it may be that many courses, including new offerings, may go unexplored. No known systematically collected data are available on why undergraduate students may or may not choose a newly offered course.

Theoretical Framework

The Theory of Planned Behavior examines underlying cognitive aspects for behavioral change and seeks to explain an individual's thought processes when deciding on a behavior (Ajzen, 2012). Human actions are thought to be guided by three beliefs: behavioral belief (attitudes), meaning that if an individual undertakes a behavior, they will have a specific outcome; normative belief (social or subjective norms) – behavior is based on social pressures, i.e., the individual's perceived expectations of people closest to the individual; and control belief (perceived behavioral control) – reflecting a person's readiness, which theoretically influence intention resulting in behavior. Furthermore, there is a distinction between perceived behavior control vs. actual behavioral control (Montano & Kasprzyk, 2015).

For undergraduate students faced with a myriad of elective courses, course choice may be influenced by reasonable, unfounded, or unclear expectations of the course experience, learning, workload, and outcomes. Student attitudes related to perceived behavioral control may help or hinder choice. For example, undergraduate students may be influenced by their attitude toward the course name or description. They may ask themselves, "Can I do it or not?' Additionally, input from friends, advisors, and others close to the student may inform their decision, for better or worse. However, these social pressures may be limited with a new course offering. This study is situated within the context of the Theory of Planned Behavior to explore the attitudinal, social norm, and perceived behavioral control elements that influence new course choice of undergraduate students.

Purpose

This study explored the attitudes, social norms, and perceived behavioral control factors influencing students' decisions to register for any newly offered undergraduate courses. The following overarching questions guided this research:

- What factors influence student attitudes toward choosing a new course?
- What social factors influence students' decisions to choose a new course?
- What factors prevent or support students from choosing a new course?

Methods

Survey Development

Survey tool development was guided by Davis (1996) and Kalkbrenner (2021). The research team met virtually and bi-weekly throughout the spring 2021 semester to develop attitudinal, social norms, and perceived behavioral control survey items based on the Theory of Planned Behavior (Ajzen, 1991). To facilitate survey development, the project lead created a survey instrument channel through Microsoft Teams, and this platform was also used to facilitate theory discussions.

A total of 29 items, nine on attitudes, nine on social norms, and 11 on perceived behavioral control, were developed to explore factors influencing students' decision to register for a new course. Some examples included, "The instructor has a good reputation as a teacher," an item exploring attitudes, "My advisor recommends I take the course," reflecting social norms, and "The course will allow me to go in-depth into a topic of interest I am already familiar with," exploring perceived behavioral control. A new course was defined as a course that had never been taught before. A 7-item Likert-like scale was utilized, with responses including 'strongly disagree,' 'disagree,' 'somewhat disagree,' 'neither agree nor disagree,' 'somewhat agree,' 'agree,' and 'strongly agree.' Additionally, following each section, optional open-ended items inviting respondents to elaborate or share any additional comments were included. Cognitive interviews with three undergraduate students not otherwise involved in the study were conducted to inform survey validity, and minor item revisions were made for clarity. This study was approved and deemed exempt by the University of Florida IRB2 (IRB202101444) on October 27, 2021.

Sample

The population of interest for this study was undergraduate students over 18 years of age enrolled in a college of agricultural and life sciences within a large southeastern U.S. land grant institution in the Fall of 2021. A total of 4101 undergraduate students were registered, including those under 18 years of age. Respondents clicked "I consent to participate in this study" before accessing survey items.

Data Collection and Analysis

The survey was administered through Qualtrics® in November and December of 2021. An email was sent to academic advisors of departments representing 24 majors within the College of Agriculture and Life Sciences (CALS) at the University of Florida requesting they forward the

approved recruitment script with the link to the survey to their department's undergraduate student listserv. Two follow-up reminder emails were sent. Descriptive statistics were used to summarize the responses to each of the items, percentages of "agree" and "strongly agree" responses were calculated, and overall means were calculated for attitudes, social norms, and perceived behavioral control components.

Subjectivity

All researchers had previous experience with undergraduate course selection; two were current undergraduate students, three were graduate students, and one was an associate professor with previous experience developing and offering a new course. The faculty researcher was not currently teaching any undergraduate courses and did not personally distribute the survey, and thus was unlikely to influence students' participation.

Findings

Table 1 shows the descriptive characteristics of study respondents compared to the demographics of the CALS's undergraduate student population during the Fall of 2021. There were 84 survey respondents and 79 completions. Most respondents were first-year students and females. Thirty-three percent of respondents were first-generation college students. Compared to the CALS's undergraduate student population, the respondents sample over-represented freshmen and sophomores and, thus, underrepresented juniors and seniors. The sample was similar to the population in regard to male and female genders; "non-binary" and "prefer to self-identify," options not available in the CALS database were chosen by 6% of respondents. Additionally, the sample provided a percentage representation of Hispanic students somewhat lower than the College's undergraduate population. A "Caribbean" ethnicity option in the survey was offered and chosen by 6% of respondents.

Table 1

Demographics of the undergraduate student respondents.

		Respondents N = 79 (%)	College N = 4101 (%)
Classification	Freshman	47 (59)	792 (19)
	Sophomore	24 (30)	652 (16)
	Junior	5 (6)	1449 (35)
	Senior	3 (4)	1169 (29)
	Unknown		39 (1)
First Generation	Yes	26 (33)	unknown
Sex/Gender	Female	55 (70)	2690 (66)
	Male	18 (23)	1383 (34)
	Non-binary	4 (5)	*
	Prefer to self-identify	1 (1)	*
	Prefer not to say	1 (1)	28 (<1)
Race	African American/Black	4 (5)	258 (6)
	Asian/Indian Subcontinent	3 (4)	406 (10)
	Multiracial	10 (13)	*
	Native American	1 (1)	41 (1)
	White	59 (75)	2325 (57)
	Prefer not to say/unknown	2 (3)	86 (2)
Ethnicity	Caribbean	5 (6)	*
	Hispanic or Latina/Latino	13 (16)	894 (22)
	Not Hispanic or Latina/Latino	57 (72)	*
	Prefer not to say	4 (5)	*

Note. *Option not surveyed.

Attitudes

The major attitudinal factor that students agreed or strongly agreed with when considering enrolling in a new course was "The course subject matter seems interesting" (82%). Specific to the professor, most students agreed or strongly agreed with the statement "The instructor has a good reputation as a teacher" (82%) and "I know the instructor and like them" (73%). However, 55% of respondents disagreed with or were indifferent (neither agree nor disagree) to the statement, "The course will teach me new "soft" skills, such as teamwork, leadership, and/or communication." The item "The course incorporates a lot of different activities (e.g., group work, field trips, projects)" led to a range of student responses, with 21% in disagreement, 21% indifferent, and the remaining indicating some level of agreement. Regarding course delivery, most respondents were indifferent or disagreed in response to the statement "The course is only offered in-person" (71%), whereas 74% were indifferent or agreed with "The course is offered online – either synchronous or asynchronous (at your own pace)." Overall, attitudinal items had an "agree" and "strongly agree" of 48% (range 12-82%).

Social Norms

Regarding social norms, most respondents agree or strongly agreed with the statements, "My advisor recommends I take the course" (63%), "The course workload will not excessively interfere with my social activities" (62%), and "My friends have said positive things about the professor" (65%). However, just over half of students reported being indifferent or in disagreement with being influenced by their friends planning to take the course (55%) or if the course is designed to help them make new friends (56%). In response to an item about a class size of fewer than 25 students, 66% of respondents indicated some level of agreement. Social norm items had an "agree" and "strongly agree" of 42% (range: 21-65%).

Perceived Behavioral Control

About the factors related to perceived behavioral control, respondents agreed or strongly agreed with the statements "The course will help me meet my graduation requirements" (96%), "The course will help me complete the requirements for my major" (95%), "The course is held at a convenient time" (89%), and "The course will allow me to go in-depth into a topic of interest I am already familiar with" (71%). However, the most frequent response to a course covering a new topic was "neither agree nor disagree." Many students were also influenced by courses not requiring a lot of out-of-pocket expenses, with doable assignments and exams, and requiring less than two hours per week of effort outside of class time. Most students (76%) were indifferent or disagreed with the statement, "The course requires a cumulative final exam (or project)," influencing them to choose a new course. "The course content is challenging but doable" showed a wide range of responses, with most noting "somewhat agree" or "agree" (65%), whereas 76% of respondents indicated some level of agreement with "The course assignments and exams seem doable." Items exploring perceived behavioral control gave an overall mean of 63% for "agree" and "strongly agree" (range: 13-96%).

Discussion

The undergraduate students surveyed in this study were sampled from a large Land Grant institution and, therefore, had a wide selection of courses from which to choose electives and, in many cases, required courses. The findings highlight that students perceive that their attitudes, social norms, and perceived behavioral control influence course choice, specifically when choosing a new, never-yet-offered course, and suggest that the construct of perceived behavioral control may most inform new course choice. Not unexpectantly, given the institutional (Crisp et al., 2018), financial (Letkiewicz et al., 2014), and perhaps social pressures (Bradley-Geist & Olson-Buchanan, 2014) to graduate, the majority of students who responded to the present survey agreed that they were influenced to select a new course that would help them meet the requirements for their majors and graduation. Latif & Miles (2020) reported that students considered a "useful' course as important or very important when choosing an elective course; however, these authors did not elaborate on the "use" for the course, i.e., useful for their future career, graduation requirements, or other purposes. Also, not surprisingly, students reported that they would be influenced to select a new course if it had interesting subject matter, a finding in agreement with previous research (Latif & Miles, 2020; McGoldrick & Schuhmann, 2002; Samara, 2015; Ting & Lee, 2012).

A timely finding was that students reported being influenced by course delivery mode and design when choosing a new course. A solely in-person course was much less preferred than an online synchronous or asynchronous new course offering. The post-secondary pandemic response with the dramatic increase in online and hybrid course offerings may have impacted the course choice preferences of students (Betz-Hamilton, 2021; Nikolopoulou, 2022). This premise is supported by a recent report by the Canadian Digital Learning Research Association (CDLRA), concluding that there will be a greater preference for online and hybrid courses in higher education (Johnson & Seaman, 2021). However, before the onset of the COVID-19 pandemic, preference for hybrid or online courses vs. in-person lectures had already been reported (Marquis & Ghosh, 2017; Smith et al., 2019; Tamta & Ansari, 2015), suggesting the pandemic response simply accelerated this trend. For many students responding to the present survey, there was also a preference for small class size, defined as less than 25 students. The institution's characteristics may have impacted this finding, given that a typical introductory course in CALS at the University of Florida averages 35.8 ± 55.9 students per class, and there are many large classes (N. Mora, personal communication, January 20, 2023). Students, particularly first-year students, may seek a smaller, more social, or familiar class environment reminiscent of secondary school; however, most students disagreed that they were influenced by their

friends planning to take the new course, a finding in contrast to previous research (Pass et al., 2012). Preferences for class design, such as a cumulative final exam or required textbooks, were less clear. Most students agreed or were neutral that a course incorporating group work, field trips, or projects would influence them to choose a new course. This is an expected finding given the diversity of student learning styles and comfort levels working in groups or teams (Decker et al., 2015; Joo, 2017). Additionally, most students indicated they would be influenced by a course that did not require a lot of out-of-pocket expenses, suggesting financial considerations impact new course selection.

Notably, undergraduate students who responded to the present survey were generally not influenced towards selecting a new course that would teach soft skills, such as teamwork, leadership, and communication. These findings may suggest that students are confident in their soft skills or may place less value on these skills than the technical content of courses. Significant research supports the critical importance of soft skill development (Dayton, 2017), and students are, in fact, confident in their skills (Stewart et al., 2016). However, the evidence suggests a deficit of such skills in the undergraduate student population (Lee, 2018), particularly from an employability perspective (Stewart et al., 2016).

Professor character was an attitudinal and social norm theme for course choice, in agreement with previous research (Latif & Miles, 2020; Samara, 2015). The professor's reputation, whether they were liked, and whether the student's friends said good things about the professor were strong factors influencing new course choices. Previous research has shown that course section selection is enhanced by a professor's reputation, such as being 'highly rated' or 'easier' (Brown & Kosovich, 2015). The need to be popular may pose a challenge for junior teaching faculty as they struggle with how best to build a reputation.

Limitations

This study was conducted at a large land grant institution; thus, the findings may not reflect new course choice of undergraduate students enrolled at smaller colleges or private institutions. Additionally, the findings may not reflect student course choice in non-agriculture and life sciences colleges. Although the introduction to the survey expressly indicated that the response to the items should be regarding "new" courses, student responses may have reflected course choice in general. Most respondents were freshman students with less experience with post-secondary course choice. Thus, the findings may not reflect course choice factors influencing junior and senior students with more experience in course selection and enrollment. Latif and Miles (2020) noted that factors affecting course choice, such as the preferred teaching style of the professor, were related to gender, culture, and year of study. Given the sample size of the present study, sub-group analysis by such demographic characteristics would have provided limited information and, therefore, was not conducted. Findings may differ if junior or senior students are

specifically queried. Additionally, there may be other factors affecting course choice that were not identified during survey development using the theoretical framework. For example, factors such as extra credit activities, studied by other researchers (Pass et al., 2012), were not considered. The survey was administered online, and thus, the sample may overrepresent students who read their emails and respond to such surveys. A face-to-face focus group or interview approach may provide rich qualitative data on this topic. The survey tool used is pending validity and reliability testing. These are additional limitations of the study. Thus, caution should be exercised regarding the interpretation of the findings.

Recommendations for Practice

The findings of this study provide some guidance for post-secondary faculty tasked with new course development. Figure 1 provides an overview of the key factors influencing new course choice. Although it is not possible to design a course perfectly balancing the background and interests of the instructor, the wants and needs of the students, and the demands of the institution, integrating key factors influencing undergraduate course choice may help to ensure course success and thus prevent wasted faculty effort if few students enroll. Latif and Miles (2020) noted that understanding how undergraduate students choose electives provides benefits by integrating curriculum, teaching practices, and student preferences.

Figure 1

Factors influencing new course choice. (Credit: Kaylan Hebert)
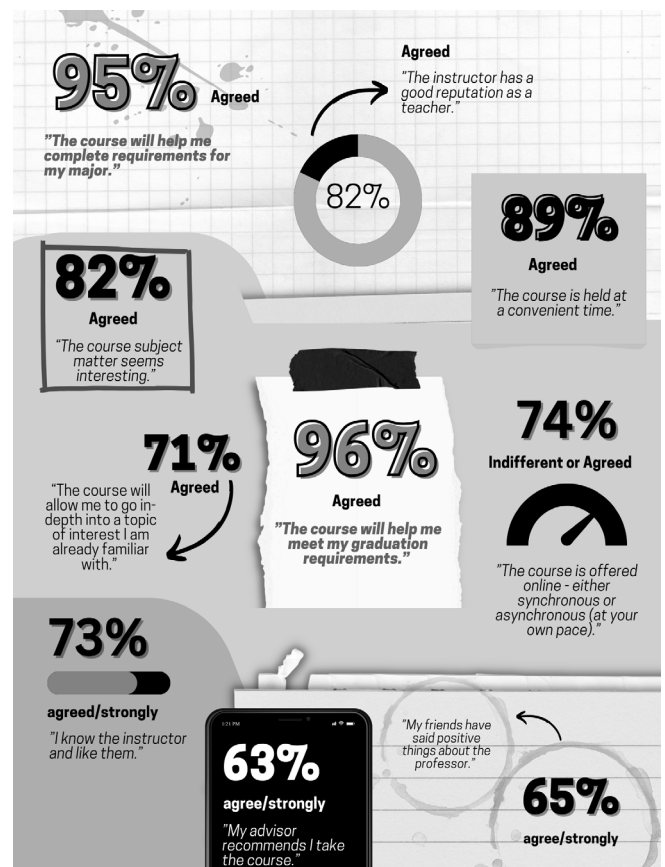
NEW COURSE CHOICE

As previously suggested, undergraduate students may spend little time and consideration with elective course choice (Chaturapruek et al., 2021); an interesting course title may be critical to spotlight a new course. As students reported they would be influenced to choose a new course if recommended by their academic advisors, providing advisors with promotional material regarding the new course offering would be prudent. Others have suggested the importance of advisors providing general orientation sessions on course selection for undergraduate students to facilitate the process (Gulum et al., 2022).

Recommendations for Research

In this study, factors influencing undergraduate new course choice were examined, but not the implications of such choices. The impact of integrating the key factors influencing new course choice on actual enrollment, satisfaction, and student outcomes requires investigation. Furthermore, given the competitive environment of higher education, research is needed to explore how promotion and marketing may impact new course choice vs. the sole reliance on the course catalog descriptions and anecdotal suggestions by academic advisors.

Conclusions

As Latif and Miles (2020) describe, an ideal course is one that students perceive as useful and interesting, among other factors. In the present study, with its specific focus on new course choice, student degree requirements and interest in the subject matter were significant factors in new course choice. Thus, faculty should strive to articulate course titles and descriptions that pique student interest and promote interest in the course through faculty advisors. Although soft skill development may be a course objective and of considerable importance to stakeholders, it was generally not a driver for new course selection. Students may not fully understand the importance of soft skills, and thus, describing a new course by the technical topic may best influence students to enroll. Although teaching faculty are keenly aware of student opinions due to instructor evaluations and professor rating sites, they may need to be mindful that their reputation or lack thereof may impact student enrollment in a new course offering.

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