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# Can the University of Maine afford to concede to its regional competitors? A 21st century road map for postsecondary language education

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# **Can the University of Maine Afford to Concede to Its Regional Competitors?**

## **A 21<sup>st</sup> Century Road Map for Postsecondary Language Education**

*“Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt*

[The limits of my language form the limits of my world].”

(Ludwig Wittgenstein)

### **ABSTRACT**

The University of Maine Flagship Match Program is designed to recruit students from neighboring states and offset enrollment declines. However, language faculty retrenchment a decade ago, the fact that other regional flagships offer effective double-degree programs with languages, STEM and other subjects, and recent changes in New England’s K-12 graduation options make it harder for the institution to attract high-performing students. If the university wants to compete with others in New England, and attract students who focus on global professional issues, it has an opportunity it cannot afford to miss. Adapting one of the models others have successfully implemented may be the way to move forward in the 21<sup>st</sup> century, making the University of Maine an important regional player.

**Key words:** higher education, language proficiency, 21<sup>st</sup> century students, intercultural communication, undergraduate language programs

### **INTRODUCTION**

Some time last year, billboards advertising the University of Maine’s Flagship Match program began greeting commuters at Boston’s Kenmore Square bus and subway terminals. It is now late winter. Both the Red Sox’ and the Patriots’ victory parades have been relegated to distant memory, Fenway Park is hibernating under a blanket of snow, and the commuter stations on the square have entered their quiet season. There is one billboard left and its reach has drastically diminished from appealing to thousands of sports fans and tourists to a few hundred residents, employees and students heading to

Back Bay apartments or the campus of a nearby university. The question begs: Why advertise for the University of Maine (UM) here?

As it turns out, this is one of several billboards in the region promoting a proactive initiative designed to offset UM's enrollment struggles and attract qualified out-of-state students by offering fees at or below their own in-state tuition rates (Gardner, 2018; Lefferts, 2014; Megan, 2015). They are appealing to future students preparing for an increasingly digitized and globally connected labor market. Given language faculty retrenchment in the University of Maine system (UMS) after the financial crisis of 2008 and more recent proposals for language program cuts (Gallagher, 2019), technological preparation may be an attainable goal, but how will the institution prepare its students for effective global communication and intercultural literacy?

To provide a possible road map, this paper outlines the emerging profile of 21<sup>st</sup> century students, shows how UM compares to other regional players, and identifies some current challenges in post-secondary language education. It concludes by outlining viable models UM could adopt to ensure graduates it seeks to attract through these billboards are prepared for the changing labor market and can compete successfully with those graduating from other Flagship institutions in the Northeast.

### **EMERGING PROFILES OF 21<sup>ST</sup> CENTURY STUDENTS**

Undoubtedly, technology simplifies global interactions – on a rudimentary level, even across languages and cultures. Yet, although Google Translate currently functions in more than 80 languages, cultural and linguistic idiosyncrasies of each language continue to render machine translation inadequate for interpersonal transactional meetings with multicultural partners at home and in other countries. As a result, global companies increasingly hire college graduates who – in addition to science, technology, engineering, mathematics (STEM) or business training - also have significant language skills. As recent studies (Damari et. al., 2017; Oxford Economics, 2012; Strauss, 2017) and alumni (Militello, 2019) have found, it is language proficiency in addition to graduates' business acumen or knowledge of STEM, that ensures successful job placement.

These so-called soft skills sought by global companies read like the learning outcomes of syllabi in innovative, proficiency-based second language film, media, culture, or

literature courses: “agile thinking” abilities to navigate complex and ambiguous situations, collaboration, teamwork, creativity, and effective oral and written communication (Oxford Economics, 2012, p. 5). As a result, graduates thrive equipped “to serve as cultural mediators in their neighborhoods, communities and places of employment at home and around the world” (Moeller & Abbot, 2018, p. 21). Also desiderata, as it turns out, for medical schools, which increasingly seek humanities-educated candidates who can apply empathy, tolerance for ambiguity, emotional appraisal of self and others, and resilience and intercultural communication abilities to their future profession (Mangione, et. al., 2018; Ofri, 2017). Thus, to ensure that students learn to understand, evaluate, synthesize, analyze, and present in-depth information in two or more languages, public and private institutions across the country have begun offering majors in STEM, business, hospitality management, international relations, and social sciences that are carefully integrated with innovative language programs and immersive study abroad and internship rotations.

## **CHALLENGES AND BENEFITS OF TRADITIONAL UNIVERSITY LANGUAGE PROGRAMS**

Although all of the above are precisely the skills well-rounded humanities majors acquire through careful analysis of literary, visual and historical documents in a second language, public universities like UM continue to divert funding to those fields that provide students with job skills needed immediately upon graduation, but which depreciate quickly (Paxson, 2013). As institutions align higher education with short-term needs of business and industry they all too often cast lower enrolled humanities subjects as a waste of resources. In the UMS, this rhetoric has persisted for decades and the most recent attempts to eliminate the two remaining degree programs in French and Spanish at UM (Gallagher, 2019) seem to suggest that there has been little change in the institution’s strategic thinking.

It is no secret that language acquisition requires a significant time commitment,<sup>1</sup> and as UM’s own Dean of Education points out, the length of time it takes to succeed professionally widely exceeds institutionally allotted instructional face time (Reagan & Osborn, 2002). However, although no other academic discipline “is asked to defend its existence the way foreign language education is usually challenged” (Reagan & Osborn,

2002, p. 11), language faculty often fail to explain how foreign language study ties into other aspects and “goals of both liberal and vocational education” (p. 20). In addition, while linguistics and literature scholars believe that the intrinsic value of what they do should be obvious in today’s interconnected societies they are often obliged to leave the teaching of lower-level language courses and their essential role in recruiting new language learners to their programs to part-time faculty. This is partially a function of the research institution, since professional recognition is linked to research achievements, not language teaching. Yet, since students need skills-based training for in-depth engagement with second language content, the very traditions that shape the research university, combined with the devaluation of language pedagogy and practical applications of spoken language, create the instructional hierarchies and institutionalize the language-content divide that also defines UM’s language department, which remains largely predicated upon the curricular model instituted in the middle of the 20<sup>th</sup> century, in which “humanists do research while language specialists provide technical support and basic training” (MLA, 2007, p. 236-37). To address the nation’s growing language crisis, the Modern Languages Association (MLA) has therefore been calling for a substantive overhaul of the prevailing “narrow model” of undergraduate education (MLA, 2007, p. 236), to replace “the two-tiered language-literature structure with a broader and more coherent curriculum” and enable students to achieve “deep translingual and transcultural competence” (MLA, 2007, p. 237) so desperately needed in the 21<sup>st</sup> century.

As a result of long established departmental and curricular structures, language faculty across the US seldom communicate the following to their prospective students, colleagues in other disciplines, and institutional leadership:

1. When students analyze a French literary text from the 17<sup>th</sup> century or a contemporary German-Turkish novel, they have learned so much more than facts about literature of the pre-Revolutionary France or post-unification Germany. As they interpret the texts, language students learn how to craft persuasive essays, work with feedback, disagree and compromise with others, engage in intercultural comparisons, and create effective public presentations (Krebs, 2018) – all in a language not their own! This, in turn, means language programs are preparing the kind of employee who would be an asset to a healthcare management team in a

- multicultural society, a multi-national team of scientists, a designer of multilingual communication software, or someone who helps a company acquire new markets;
2. When students experience what it is like to communicate in a language or culture not their own, they develop empathy, resilience, flexibility, and tolerance, whereas monolingual English speakers cannot become truly empathetic citizens of the world;
  3. Monolingual professionals have to rely on the information partners and competitors are willing to translate for them without being able to verify it for themselves or find other sources that might provide alternative models and information needed to make the best decisions; and, finally
  4. By eliminating humanities subjects with a more global, intercultural focus, administrations restrict university expertise, and, under extreme circumstances can control what kinds of expertise is available by “limiting the access of citizens to knowledge” (Reagan & Osborn, 2002, p. 13).

## **THE CURRENT STATE OF AFFAIRS AT PUBLIC INSTITUTIONS IN THE NORTHEAST**

A little less than a decade ago, UM along with the Universities of Southern Maine (USM), Northern Iowa, New Mexico, Nevada at Reno, Southern Mississippi, and SUNY Albany cut languages and other humanities programs (Berman, 2011; Bunsis, 2011; Foderaro, 2010). Although it has become increasingly evident that those program eliminations did little to alleviate budget shortfalls, they have had unintended, but far-reaching consequences. These cuts have ensured the following:

1. Only wealthy or scholarship-supported students can acquire broader, deeper and more diverse skills and knowledge that will allow them to prosper in many careers, because they can study at elite or better funded out-of-state institutions (Krebs, 2018);

2. Less privileged students will be trained for restricted job capabilities currently needed in the economy, but their narrowly focused education will not allow them to retool easily when their jobs are outsourced or become obsolete;
3. Entire regions – including the state of Maine - now lack varied opportunities for significant language study (Flaherty, 2018), ceding more influence to private or better-funded out-of-state institutions and further cementing an intellectual and educational divide between the rich and the less affluent;
4. Graduates find themselves at a competitive disadvantage in an increasingly multicultural, multilingual society (Abbot and Brown, 2006; Stewart, 2007; Strauss, 2017) and do not qualify for the growing number of job openings for bilingual speakers (Flaherty, 2016; Flannery, 2017; Harrison, 2017);
5. Recruitment of certified language teachers in K-12 schools is disrupted (American Academy, 2017; Smith, 2015) and precipitates an already severe language teacher shortage;
6. International students continue to arrive on campus as intercultural expertise (Foderaro, 2010) and language learning opportunities disappear. For those already proficient in their own language and English such opportunities may influence which US institutions they choose.<sup>2</sup>

The following table illustrates how UMS language program eliminations affected the state’s language enrollments between 2009 and 2016. To provide some context, the table includes enrollment numbers from all four-year institutions in the Northeast, while the totals for Maine include Bates, Bowdoin and Colby Colleges and UMS, and then also lists UMS enrollments separately. UMS language enrollments between 2013 and 2016 reflect only lower-level instruction in languages other than French and Spanish, which does not lead to functional proficiency needed in the work place.<sup>3</sup>

TABLE 1: Language Enrollments in Maine and the Northeast 2009-2016

Language	Year	Northeast	Maine	UMS
Chinese	Fall 2016	14,625	216	27
	Fall 2013	15,926	267	12
	Fall 2009	16,014	237	49

<b>French</b>	Fall 2016	39,393	943	430
	Fall 2013	43,575	950	426
	Fall 2009	47,045	1,126	572
<b>German</b>	Fall 2016	15,132	260	69
	Fall 2013	15,613	241	72
	Fall 2009	17,133	409	227
<b>Japanese</b>	Fall 2016	12,352	150	20
	Fall 2013	11,137	164	116
	Fall 2009	11,644	147	19
<b>Spanish</b>	Fall 2016	112,393	1,320	346
	Fall 2013	120,914	1,543	738
	Fall 2009	132,665	1,728	754
<b>Latin</b>	Fall 2016	6,081	129	31
	Fall 2013	6,098	230	69
	Fall 2009	7,215	264	129

Although its mission states that UM seeks to address “complex challenges and opportunities of the 21<sup>st</sup> century” by ensuring that graduates learn to “contribute knowledge to issues of local, national, and international significance” (Mission, 2010), the institution is currently not adequately equipped to fulfill all of these goals. The state faces major challenges, ranging – among others - from an aging population (Moody, 2011), a significant increase in non-English speaking immigrants (American Immigration Council, 2017) and a decline in high school graduates (Seltzer, 2016a), diminished language and other humanities’ degree options, and a dire shortage of language teachers. UMS is currently only equipped to train advanced speakers of French and Spanish, which already ensures that companies or school districts needing employees with knowledge in Chinese, German, Japanese, or Latin already have to recruit out-of-state candidates.

The Flagship Match program has resulted in a 46% enrollment gain of out-of-state students.<sup>4</sup> Yet, the academic caliber of these recruits does not appear to compare to those who apply to neighboring states’ more selective flagship institutions (Seltzer, 2016b), which incidentally also offer more varied opportunities for intercultural and language training. Clearly, the authors of the Flagship Match Program have offset the diminishing numbers of Maine’s high school graduates with out-of-state students, but the two other

factors they have not taken into consideration are the global turn in the regional economy and the changing educational goals of their future students:

1. 95% of today’s American university language students no longer pursue training as language and literature professionals or future language teachers, but rather major in other fields and seek to develop proficiency in a second language to enhance career opportunities (Berka & Groll, 2011; Militelo, 2019; MLA, 2007).
2. Given that UM seeks to “attract bright young people to the state who will stay and work in Maine” (Provost Hecker in: Megan, 2015), and 386,200 jobs in Maine, Massachusetts, New Hampshire, and Vermont are created by foreign-owned companies,<sup>5</sup> the institution must create the kind of language programs that provide graduates from neighboring states’ flagship institutions with a distinct competitive edge in the region.
3. In 2018, Maine became one of 33 states that graduate college-bound high school students with the Seal of Biliteracy, an accreditation for high school seniors who demonstrate proficiency in two or more languages.<sup>6</sup> This means, that both heritage speakers, who speak one language at home and English at school as well as native English speakers, who have acquired proficiency in another language through their K-12 education are reaching college age. As we have begun to see at Boston University, students who have earned the seal, are requesting college credit, similar to Advanced Placement, and seek either college-level instruction in advanced, professionalized language courses in their second language or opportunities to acquire proficiency in a new language that was not available in their K-12 institutions.

UM’s competitors in the region, the Universities of Connecticut (UConn), Rhode Island (URI), New Hampshire (UNH), and Vermont (UVM) all offer significantly more language degree programs (x = advanced courses taught; 0 = only basic language instruction or none at all).

TABLE 2: Language Degrees Offered by the University of Maine and its Competitors

Flagship	Chinese	French	German	Italian	Latin	Spanish	Other
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							<b>Languages</b>
<b>UConn</b>	x	x	x	x	0	x	0
<b>UM</b>	0	x	0	0	0	x	0
<b>UNH</b>	x	x	x	0	0	x	Russian
<b>URI</b>	x	x	x	x	x	x	Portuguese
<b>UVM</b>	x	x	x	x	x	x	Classical Greek, Japanese, Russian

In comparison to UConn, UNH, URI, and UVM, a rather sobering picture emerges for prospective UM students who plan to acquire in-depth language and intercultural training in languages other than French and Spanish. This may explain why UM is unable to attract the same kinds of high performing students who attend neighboring flagships, where language enrollments for the Fall of 2016 reveal the following (again, bearing in mind, that UM's numbers for languages other than French and Spanish only cover basic language instruction).

TABLE 3: Language Enrollments in Fall 2016 at all Five Area Flagships

<b>Language</b>	<b>UM</b>	<b>UConn</b>	<b>UVM</b>	<b>UNH</b>	<b>URI</b>
<b>Chinese</b>	3	248	95	49	191
<b>French</b>	106	723	323	208	486
<b>German</b>	50	597	134	117	450
<b>Japanese</b>	14	40	193	35	164
<b>Spanish</b>	165	1,085	768	568	1,109
<b>Latin</b>	31	36	68	100	91

To put these numbers into perspective, consider that a total of 369 students were enrolled in language courses at UM in 2016, which constitutes roughly 3% of UM's total undergraduate population. By comparison, 10% of UConn's undergraduates studied a language versus 16% at UVM, 8% at UNH and 35% at URI.<sup>7</sup> The numbers clearly demonstrate that developing more diverse language learning opportunities is essential if UM seeks to recruit and retain gifted students who already know that multilingualism and intercultural proficiency are essential for success in the 21<sup>st</sup> century. Currently, UVM and

UNH, like UM, offer traditional, discipline-based language majors, albeit with more language options. Effective faculty advising allows enterprising students to graduate with double-majors in other fields and a language. However, at UNH and UVM too, language faculty are increasingly asked to defend themselves against proposed cuts every time there is a perceived budget shortfall. In UConn and URI, on the other hand, carefully articulated interdisciplinary programs and innovative curricular approaches– in addition to business and STEM – ensure effective linguistic and intercultural preparation of their graduates. Solid enrollments as well as almost perfect job placement rates have made the double degree programs very competitive, allowing both institutions to be selective in recruiting high performing students to these signature programs. Given the lack of opportunities for globally minded, outward-looking students at UM and competition from other regional flagships, the question is: Can UM really afford to continue offering traditional majors in French and Spanish and not begin to develop interdisciplinary programs, in which well-articulated, 21<sup>st</sup> century language learning plays a significant role?

### **SUCCESSFUL MODELS AT OTHER PUBLIC INSTITUTIONS**

Because of language faculty retrenchment nearly a decade ago and upcoming retirements, UM currently has the unique opportunity to redesign existing and create new language programs that are flexible enough to meet the needs of 21<sup>st</sup> century students and global employers. Public institutions, which have already strategically invested in cutting edge language instruction and the creation of dual majors, have seen a substantial enrollment increases (Flaherty, 2018).

Five state universities have parlayed Business-STEM-World Language combinations into effective student recruitment and nearly perfect job placement for their graduates and provide various models for UM to emulate: URI's International Engineering program allows students to earn a double degree in engineering and either Chinese, French, German, Italian or Spanish in five years with well-articulated internship rotations abroad. UConn has partnered with the German state of Baden-Württemberg to leverage scholarships for study abroad and internships at German companies for their dual degree German and engineering students. Other dual degrees, without the same level of scholarship support, exist in French, Spanish and Chinese. All have a mandatory fourth year abroad. The

University of Arkansas, Fayetteville (UArk) created a similar program for German. At the University of Northern Arizona (NAU), majoring in interdisciplinary global programs allows students to combine their STEM, Business or Hospitality Studies with integrated language studies and internships abroad in Chinese, French, Japanese, German or Spanish. While Iowa State University (ISU) offers dual majors in Languages and Cultures for Professions where students combine degrees in Chinese, French, German, Russian and Spanish with majors in Agriculture, Business, and Engineering. The language enrollments for the Fall of 2016 at these five institutions clearly reveal the popularity of these programs. In terms of overall percentages, in addition to UConn's 10% and URI's 35%, 5% of ISU undergraduates took languages compared to 9% at NAU and 14% at UArk.<sup>8</sup>

TABLE 4: Fall 2016 Enrollments for articulated STEM, Business and Language Majors

Language	ISU	UConn	URI	NAU	UArk
Arabic	69	174	26	64	95
Chinese	166	248	191	74	126
French	234	723	486	379	539
German	239	597	450	246	325
Italian	N/A	581	376	75	159
Japanese	N/A	40	164	124	116
Russian	53	N/A	27	N/A	32
Spanish	994	1,085	1,109	1,591	1,621

While the institutional structures and funding models at these universities are very similar to those at UM and any one of these successful approaches could be adapted easily, the faculty make-up in their language programs differs markedly from that of UM's more traditional language-literature department. They include both scholar-teachers with specialties in literature and linguistics as well as faculty trained in digital humanities (Thompson Klein, 2015), proficiency- and content-based instruction, and language for professional purposes. The administrations in these institutions have clearly realized that international business, hospitality, and STEM subjects are inherently global and that the humanities and principled language education provide avenues for more nuanced

approaches to problem-solving through the development of critical thinking and clear communication across cultures.

Their interdisciplinary curricula and the space university administrations have provided for divergent faculties to collaborate across disciplines and with sites abroad have translated into excellent recruitment opportunities and higher enrollments. Most of all, the high job placement rate of their graduates clearly demonstrates that students in non-humanities fields who also have a proficiency-based degree in a world language “are technically adept as well as linguistically and culturally savvy, and find themselves optimally prepared for the global market place” (Berka & Groll, 2011, p. 2).

### **VIABLE WAYS FORWARD FOR THE UNIVERSITY OF MAINE**

When the UMS eliminated multiple language faculty positions, the flagship campus remained committed to retaining advanced-level instruction in French and Spanish. Recently, USM has also begun rebuilding language programs with new Linguistics majors that include French or Spanish concentrations (Margolin, 2018). Both institutions place the responsibility for teaching the foundations of other languages on the shoulders of adjunct faculty, which enables them to publicly state that they offer a variety language learning opportunities to their students. While not technically false, such statements fail to clarify that the level of language instruction cannot lead to functional proficiency required for the workplace. In addition to misleading the public about the depth of instruction available in languages other than French and Spanish, relying solely on contingent labor is also problematic for a variety of other reasons:

1. Although students pay regular tuition rates for these courses, adjunct faculty are hired on a class-by-class basis, are poorly paid, and have neither the larger curricular picture needed to develop students’ functional proficiency, nor do they have the time, resources, or institutional support to develop a well-structured program of study;
2. With their job security tenuous at best, they also do not feel free to make far-reaching, possibly necessary, changes to course content or adjust pedagogical approaches;

3. Adjunct instructors rarely receive opportunities for professional development needed to keep abreast with research-based, effective language teaching techniques and up-to-date instructional technologies;
4. Their status explains hesitance in promoting rigorous classroom discussion of issues from several points-of-view, and therefore deprives undergraduates of critical debates that are essential to informed citizenship (Swidler, 2017).

As the examples from institutions mentioned above clearly demonstrate, (re)building language programs in the traditional mid-20<sup>th</sup> century image is no longer a sustainable option. With Maine and other states in UM's catchment area poised to accept growing numbers of high school graduates with the Seal of Biliteracy, UM's language faculty must urgently engage with the state's K-12 language enterprise, participate in national language debates, embrace the digitization of the humanities, and create advanced, specialized content courses. Already, German-STEM graduates from Augusta's Cony High School<sup>9</sup> are forced to seek higher education possibilities outside of Maine. The creation of feasible pathways in French and Spanish that involve more than literary analysis for students who already come with significant language expertise becomes all the more pressing, as does developing genuine capacity for training in other languages. Both require thoughtful investments, which UM, as flagship, can no longer afford not to make.

In the short term, UM, like UVM, could appoint a curriculum director who can help faculty design an effective 21<sup>st</sup> century curricular framework for existing language programs. Current French and Spanish faculty would be guided to reframe the way they teach and embrace proficiency-based, task-oriented and outcomes-aligned instruction from the first through last days of instruction. This would require a shift away from traditional language courses to those where students go beyond studying linguistic structures of the language or interpret literary texts and expand course offerings ensure that students also analyze other types of second language materials and learn how to craft their own multimedia messages. Since 21<sup>st</sup> century employers also rely increasingly on teams of people with diverse cultural and linguistic training to work together, build consensus and compromise – project-based language courses will also help students innovate, develop leadership skills and foster knowledge of their own strengths and weaknesses. They are designed to help students understand that “multilingual communication is intrinsic to

today's scientific collaboration and progress" (Globalization and Localization Association, 2013, para. 3).

To affect necessary changes, the director provides language faculty with time to study and discuss effective curricular models (Maxim, et al, 2013; Paesani, et al, 2015), innovative approaches to teaching language (Pérez, 2018) or literature (Viakinnou-Brinson, 2018) as well as appropriate professional development to guide their curriculum development and facilitate interdisciplinary collaborations with STEM and other faculty. As the curriculum takes shape, close collaboration with the study abroad office and career and community outreach entities on campus can serve to link language study to local and international internship opportunities and career readiness. Finally, nurturing connections to school districts will also help build sustainable recruiting pipelines from K-12 school programs. Once the framework is established, UM's future language faculty hires must have the ability to build effectively articulated interdisciplinary language programs from the ground up. However, supporting new instructional approaches and non-traditional faculty specialties demand both a change in search and hiring parameters as well as changed tenure requirements (Nguyen, 2018, p.5). Rather than anchoring a new language program around a traditionally trained tenure-track faculty member, UM could recruit faculty with a language acquisition or content-based language pedagogy research and teaching portfolio. However, as is evident from other universities, if UM goes the non-professorial route, it will only be able to recruit innovative faculty if it also offers a clearly delineated promotion path, funding for relevant professional development, and a salary comparable to the unmodified professorial rank.

This is not to say that there is no longer a place for literary or linguistic analysis. In fact, some of the more traditional courses remain central to the 21<sup>st</sup> century language major. It is more a case of collaborating with faculty in different disciplines and of diversifying course offerings. Since work in digital humanities, by its very nature, fosters discourse between disciplines to "create a product" or "meet a designated pragmatic need" and also allows students to interrogate "the dominant structure of knowledge and education with the aim of transforming them" (Thompson Klein, 2015, 18), interdisciplinary course development will add the types of courses the previously mentioned language programs have successfully instituted. Collaborations with STEM

faculty who have re-developed general education courses to make the sciences more accessible for non-science majors can also lead to language course segments that appeal to a variety of students. For example, after working with a faculty member who teaches the chemistry of cooking (Wolf, 2012), language faculty could add instructional units on the science but also environmental sustainability of specific traditional cuisines. Collaboration with a physicist who teaches students to analyze where cartoons and movies get Physics wrong (Rogers, 2007) would infuse a film course with interesting discussion options or ask students to analyze similarly problematic descriptions in science fiction novels, thus acquiring science-related vocabulary and communication skills in another language. They could also work with colleagues in Mathematics and Computer Science on digital humanities' projects to teach students to apply computational and statistical approaches to interpreting literary texts through quantitative digital text mining and visualizations. Conversely, a linguist's collaboration with Computer Science faculty could facilitate students' analyses of various machine-learning techniques in processing speech-to-text or other machine translation applications to identify limitations and possibilities.

Based on the premises of Stonybrook University's *Alda Center for Communicating Sciences* UM's language faculty should also shift their focus to one of training language students how to communicate information about their non-humanities fields effectively to lay audiences in two languages. In collaborating with the career center, language faculty could invite representatives from organizations that develop or work in machine translation and talk about jobs in their organizations. Language students will quickly understand that even the most effective machine translators still require vast amounts of human-generated linguistic data that takes into consideration specific expressions, and grammar.

In conclusion, both linguistics and literary scholars can start by making clear to their students that linguistic inquiry is about clear communicative intent and literary analysis teaches them how to tell the stories of their research. They start with a question, build suspense, create a turning point and provide a resolution and learn to present their information to general, non-specialist audiences without field-specific jargon (Alda, 2017). As a result, all students in these courses learn to present information clearly in a second language.

## OUTLOOK

Observations about UM's attitude toward language education from the past – frustratingly – still hold true (Lindenfeld & Hoecherl-Alden, 2008; Smith, 2015), but they were made before the financial influx of the Flagship Match program and the establishment of the Seal of Biliteracy. Given that UM now seeks to recruit students from across New England and has reduced its language capabilities to the absolute minimum but needs to compete with other flagships, there is a unique opportunity to create cutting-edge, innovative academic programs that meld language programs with STEM and other subjects. As has been true for state institutions elsewhere, this will attract higher performing students to Maine and simultaneously feed the job market's demand for bi-lingual and interculturally proficient employees.

The University of Maine is at a crossroads, where it can seize the opportunity or further cede the recruitment of high performing students to other regional state or elite private competitors. Given what is at stake, adjustments are small and the costs are minimal, but will yield positive results for the state and the region.

## ENDNOTES

<sup>1</sup> The Foreign Service Institute determines that it takes native speakers of English a minimum of 600 hours of intensive instruction to achieve the kind of proficiency to function professionally in those languages most closely related to English (French, Spanish, Portuguese), 900 for German and Swahili, and over 2,000 hours for Arabic, Chinese, and Japanese. See: <https://www.state.gov/m/fsi/sls/c78549.htm>.

<sup>2</sup> My own institution, Boston University, attracts up to 24% international students annually, and although those in the College of Arts and Sciences can test out of the two-year language requirement with their native language, most decide to enroll in a language that is new to them to build additional proficiency.

<sup>3</sup> This and all subsequently cited numbers come from the Modern Language Association's language enrollment data base: [https://apps.mla.org/flsurvey\\_search](https://apps.mla.org/flsurvey_search).

<sup>4</sup> Compared to the University of Rhode Island at 56%, the University of New Hampshire at 58%, but significantly below the University of Vermont at 77% See:

<https://www.collegexpress.com/lists/list/percentage-of-out-of-state-students-at-public-universities/360/>.

<sup>5</sup> 40,500 with French, 34,700 jobs with German, 6,000 with Swiss, and 23,800 with Japanese companies. Source: <https://www.germanbusinessmatters.com>.

<sup>6</sup> For the map, see: <http://sealofbilingual.org>. While the seal is designed to help students recognize the value of bilingualism, different states and school districts award the seal for differing levels of language ability which makes granting language credit a little more complex than accepting Advanced Placement scores.

<sup>7</sup> For 2016, undergraduate enrollment numbers can be found here: University of Maine - <http://www.maine.edu/wp-content/uploads/2016/11/Fall-2016-Enrollment-Report.pdf?565a1d> and for 2016-2017; University of Connecticut - <https://datausa.io/profile/university/university-of-connecticut/>; University of New Hampshire - <https://www.education.nh.gov/highered/research/documents/distance-undergrad.pdf>; University of Rhode Island - [http://profiles.asee.org/profiles/7464/print\\_all](http://profiles.asee.org/profiles/7464/print_all); University of Vermont - <https://www.uvm.edu/~oir/sbinfo/fsave.pdf>.

<sup>8</sup> 2016 undergraduate enrollment data: Universities of Northern Arizona - <https://www.azregents.edu/sites/default/files/public/2016%20Fall%20Enrollment%20Report.pdf>; Iowa State University - <https://www.registrar.iastate.edu/sites/default/files/uploads/stats/gender/g-race-resf16.pdf>; University of Arkansas at Fayetteville - <https://oir.uark.edu/students/enrollment-reports/fall2016enlrptsummary.pdf>.

<sup>9</sup> In 2018, Cony High School in Augusta became one of 13 in the United States to join a worldwide program of schools that combine strong German instruction and effective STEM education, which provides students with up to \$15,000 in annual grants to attend language and STEM-related activities across the country and/or study abroad opportunities. For information on the program, see: <https://www.pasch-net.de/en/udi.html>.

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