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Preliminary Thoughts

I am happy to be a part of CGA's Annual Conference this year, and to represent the [Department of Geography](#) at Michigan State University and our online geography program ([onGEO](#)). In this post, I will discuss our experiences developing and managing online courses and how these experiences, in our opinion, parallel the expansion of the online geospatial education field and have also improved the MSU Geography Department's 'traditional' (in-classroom) courses.

I will first outline a brief history of our program. We began developing online geography classes in 1999 in response to high demand for some of our courses and to lighten faculty teaching loads. As technology improved and as we became more experienced with online teaching's pedagogical and organizational challenges, we developed our first "technical" class in 1999 (Remote Sensing), eventually also developing two GIS courses and a cartography course. In 2012 we expanded our program to offer four non-credit [Professional Development certificate](#) courses.

Awareness of geospatial technology's value (and geography in general) has improved, and the demand for geospatial education has subsequently increased. As a result, the number of courses we offer has increased, as has the pace of our course development. Additionally, we now offer courses (i.e. our professional certificate courses) to meet demand from groups other than MSU undergraduates, such as working professionals. Most of our new courses have been in the fields of GIS and cartography, but our non-technical courses (such as a human geography course) still offer students the opportunity to use basic GIS programs and other geospatial tools.

Geospatial education courses are a particularly good fit for the online platform. There is so much information now available in digital form (e.g., satellite and other aerial images, GIS tutorials and lesson plans, informational and instructional videos, et cetera) that it is increasingly easy to include informative, visually pleasing, and interactive resources into our classes that were unavailable just a few years ago.

And this increase in available resources is perhaps the largest impact of our online courses on the Geography Department's in-classroom offerings of the same classes. Many of our faculty and instructors (including me) taught or teach the traditional version of the online course they developed. When developing the online course, a faculty member considers if and how the course's content and assessments can translated to the online platform, and what modifications should be made. But online course development and teaching also creates opportunities for the classroom environment - anything from having students take exams online in order to use classroom time for teaching and lab assignments, to incorporating the resources mentioned earlier into classroom lectures and activities. In our experience, when faculty and instructors take the time and significant effort to develop an online course - considering how they are teaching and presenting important concepts, how they can work with the opportunities (and the limitations of) the online format, and reflecting on their classes - it "feeds into" the teaching of their in-person class, ultimately improving it.