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Narrative 7: Matthew Land

Matthew Land is an assistant professor at a Doctoral University: Moderate Research Activity. At the time of the interview, he had been in his position for just shy of two years. In this narrative, Matthew describes how his initial desire to teach at a teaching focused university grew to include conducting research as well. He discusses how his current position is a perfect fit for him on many levels, including that his department is aspirational in terms of research, which was an important characteristic for him as he was considering where he wanted to become a professor.

How I got here

In a class in undergrad, my professor had just gotten tenure and he came into the room and he was really, really happy. And I was like, this guy has been a good teacher all semester, he just had this weight lifted, and I was like – I want what this guy is having. That was the first time I thought maybe I want to be a professor.

But then in parallel with that, I had always kind of begrudged bad teachers, and always thought, I can do this better, I should do this better. If I think I can, I probably should. That's like, if you're going to offer criticism about something, you have to fix it, you can't just knock it down, you have to build it up. So that's when [I thought] ok, I'll get my PhD to go teach.

So, I started doing research at the [university where I got all my degrees, a Doctoral University: Highest Research Activity], so I stayed there for my PhD. Part of that was because I didn't get in anywhere else, but also my wife, then girlfriend, came to [Undergraduate, Master's and PhD University] for medical school, and we had been long-distance for four years, and so I was like, now I can't leave.

I started off wanted to get my PhD to be a professor so that I could teach. From a couple different angles – one was, at a giant research institution like [Undergraduate, Master's and PhD University], you have a bunch of faculty members that don't want to teach, and you're like, come on, this isn't what everybody said. But I also noticed a couple of different times when I didn't think I liked something, and then did later. And the difference there was teaching. One was computer programming. I hated computer programming all of undergrad, and then got to do

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it professionally. And another was this old board game my dad kept trying to teach me when I was little and I hated it, because he always won. There's all these things in the teaching literature about, you know, make it an enjoyable experience. If you keep losing, then you don't want to do it.

Those were two experiences when I was like ok, there are things that you can learn to be a better teacher, and that's kind of why I wanted to go into education in the first place. And then as a graduate student at a research university, I was forced to do research, and then I got good at it, and I was like, oh this is fun too! Maybe I will be competitive for "real" professor positions. So, it was [at] the end of graduate school and the beginning of my post-docs. I think my publication record is kind of competitive, where I can start applying, and I think that there's a little bit of an x-factor when someone is personable as an engineer that goes a long way. So, I think that when departments meet me, they're like, oh, even if his research isn't that great, we want him here. And so, I kind of knew I had that, so I was kind of aggressive about applying, and I got four interviews and ended up choosing [Current Institution, a Doctoral University: Moderate Research Activity] because it was a place that was a good fit from the research perspective and the teaching perspective.

At [Undergraduate, Master's and PhD University], they have a [teaching center], there's an engineering focused one and a broader one there, and I did a future faculty seminar at one of them. It was awesome. It was a whole month-long thing, where we met twice a week, got lunch both of those days, and it was graduate students from the entire university that had aspirations of being faculty members, and it was kind of the first foot in the pond of pedagogical literature. So, learning the different research that was out there or current best practices, looking at the vocabulary, and seeing these things in person, and being like, wow, these are self-consistent. If you can use this to teach me this, then it's something that works, right?

It was during that, for the very first time I got exposure to universities that weren't R1 Institutions. We had faculty come in from [a local Master's Institution], and I actually visited there, and I was like, this is totally a place I could see myself, that does research but it's really education focused and doesn't have graduate degrees. This is in the cards.

I finished my PhD and then got a post-doc at [Postdoc University, a Doctoral University: Highest Research Activity]. That was picked because of its co-locality with my wife's work. She

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was doing her fellowship at [Nearby University], and so that was the closest place where something made sense for me. Later, I got really lucky and got a post-doc at the [National Lab in the area], which was just down the road. So, I did [two] post-docs there for about three years. Then at the same time I got the job at [National Lab in the area], I also got an offer from [Current Institution], and accepted those in parallel and delayed the start at [Current Institution] so that we could finish my wife's fellowship and move up to [Current City] together.

I think the pushback [to go to a non-R1 Institution] was mostly cultural, in the sense that it was never something that [I] had talked about before, and if it's not in your stated goals, it kind of feels like failure. So, there was never any explicit discussion, like that's a bad thing to do, but it was never anyone's top choice. It was always kind of weighed in the context of everything else. There's a perception, which I think is true, that it's a little bit easier to get jobs at places that don't have research agendas, and it's because bringing in those research dollars is extremely competitive. And you need people that are competitive at that and that want to do it, on top of being good teachers, or that want to do that instead of being good teachers. It's a different thing, which doesn't mean it's bad, it's just different.

I got interviews at [a Baccalaureate college], which is an undergraduate teaching focused institution. I got an interview at [an R1 Institution] which is a pretty standard R1, but small. I got an interview at [another R1 Institution], which is very much R1, and an interview at [Current Institution]. And it was during the interview at [the "very much R1" institution] that I accepted the offer at [Current Institution] – where I was like, I can't live in [the city where R1 is], it's a place I don't understand. But [Current City] is a place that has the mountain biking that I like, a really high quality of life, the faculty seemed pretty balanced in work-life balance, or at least that was something that was a stated value, that you didn't hear stated at a lot of places.

I knew that [a teaching center] was [at Current Institution], but also the [disciplinary] department here is kind of an outlier in the university as a whole. It's an R1 department in an R2 university. So, there are aspirations to make the program world class. There's a little bit of a bait and switch there, where I was a great fit for the university, and the new faculty that have showed up in this department, we have hired seven people in the last three-ish years, they really have the pressure on us to be world-class researchers. And that's fun, but it's also a little bit stressful. It's important context.

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[Current Institution] was, until recently, a majority commuter campus. But it's turning into kind of a regular R1 school – slowly. And so, you can still see the aftereffects of being a startup new thing, – like our PhD program is only five years old, we are just graduating our first students. The department is only 12 years old or 14 years old, but it's also quite young. So, it's – the culture is more of one in motion, where the culture is something that is being built on the fly, which was an attractive part of coming to [Current Institution].

[I was also attracted to] the culture of the department. A whole bunch of the faculty mentioned biking during my interview, so basically everyone is the same cycling team, how can I not come here? This is the perfect fit. Also, the intentionality with work-life balance and, again, I think that it was a place where faculty members can be like, "I think that I would like to go half-time, and concentrate on my family for a while." and having a department that's like, "yeah, we support that," I think it really pretty unusual.

It felt like it was a place where the culture fit, the culture of the town was a fit, and in a department that was very aspirational. I mentioned that an element of what was exciting, was that this thing is so new. So as a new faculty member here, I would get to shape what the culture is, and I think that was a unique opportunity compared to a lot of places, where there is a lot of institution momentum.

My preparations for teaching

I was a pretentious math kid. My dad [who was a math prodigy] made me do math competitions all growing up, so I was pretty much always the smartest math kid around, so I kind of identified with that, and liked showing other people the things that I could do. Then, kind of in parallel, when I was growing up, I was a camp counselor, that involves elements of teaching that aren't direct teaching, or like, not teaching course material, but a lot of the classroom presence sorts of things, you kind of learn there on the fly. And managing the hundreds of kids.

In graduate school, because I knew I wanted to teach, I sought out teaching opportunities. When I was a graduate student, I was a visiting professor for a programming class at [Local Baccalaureate College]. I volunteered for an NSF study that was being run by our center for teaching and learning, and I co-taught a math class at a high-school in [Undergraduate, Master's and PhD University city] with the algebra teacher there.

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And that particular experience was pretty horrible. I learned that – I kind of walked in the room as the good cop, and the teacher was the bad cop, and I was the new fun guy, and immediately turned the class against her. So, we had this real friction between us, and so even though she and I don't get along and still don't speak, learning that that could be a thing and that being a good team-member is really crucial to effective teaching, I think was way more important than what I would have learned teaching algebra that semester. And then, I think I didn't have any formal teaching opportunities between graduate school and starting here, because those post-docs are very much research focused.

I think [I learned about being a faculty member by] just watching my professors when I was a graduate student. The teaching side was very visible as a student, and that was something that I thought I always wanted to do. The research side I got to discover as a graduate student, and at first, I had some push back against that and then got onboard. The service side, in terms of advising students, and helping make a machine run, I think – [those are] things that I have interest in anyway.

My early days as a professor and what I am doing now

I have a one-one load, I teach one course a semester. Next semester, I think – we also have this issue of needing to provide enough courses for our graduate students to graduate on time with this new department, and we require a bunch of electives. But then all of sudden, we don't have enough hands to go around teaching those electives, so that's kind of a problem. And I think the only way we are going to do this is if some of the faculty double up and teach more courses than their contract asks them to. So, I think next semester, I am going to teach two classes instead of one.

On the one hand, I like the two classes that I am going to teach, so that part sounds fun. But it will necessarily take away from the balance that I have to spend on other things. And I don't know if that will have a significant impact on the papers that I need to get out, and proposals that I would like to submit to, or if it will be manageable. I don't know how that will go yet.

I think that the culture of the department at [Current Institution] really encourages playing around with one's curriculum, trying new things out and – so for example, something

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that I honed in on in my programming class is I used two different colored sticky notes in class, this is my introduction to programming class. Every day at the beginning of class, everyone picks up a pink one and a green one, or a yellow one or a blue one, two different colored ones. And as we are working on the day's worksheets, if you get stuck, you put up your red flag, and it's a visual reminder for me to come over and help. And if you're done with this thing, you can put up a green flag. So, it helps me pace the class. There's immediate feedback in the classroom that helps me manage everybody's learning in the room, and at the end of class, on their green ones, I have everybody write something that went well, and then on the pink ones, something that didn't go well, that they'd like to fix.

And so, these post-it notes are huge. I can take that and make the class the next week even better, and doing this semester on semester, I think is way more effective than just working on your end-of-course evaluations and try to teach stuff too late. I think students really appreciate that because there's a sense of agency in the class. Like, when they see that I fix something because of them, they know that I care. It's a little thing that goes a really long way.

What tenure looks like here

Our department wants to be competitive on the world stage as a research department, but that doesn't mean we get to sluff it in teaching. So, my dean is one of the founding members of the department, and our department probably has the highest participation in the center for teaching and learning workshops. The culture is very much supportive of improving as teachers. And you won't get tenure here if you're not a great teacher. Whether or not you can get tenure without being a great researcher is still yet to be seen. Nobody in the department has gone up for tenure and has not gotten it yet. Because we are so young. But the pressures were different than they are now.

Formally, [for teaching] the only thing that goes before the provost are your teaching evaluations. The department chair and the dean get those teaching evaluations also, but within the department, there are opportunities for teaching observations, so other faculty have been to my classroom to see what I do. But formally, it is only the number.

My impression of the tenure requirements are that they're not unusual - Research, Teaching, and Service with percentages and particular metrics that depend on the department,

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and there aren't mutterings about them being unfair or surprising. It's good that departments have their own internal metrics, so the "conference paper" in computer science is "counted" the same as a traditional journal article in engineering, and so the departments can specify priorities for things like journals over books, etc.

My annual weights are something like 60% research, 20% teaching, 20% service. I love to ask people how they'd use 20% of a 40-hour work week to prep, teach, and grade a class that meets 3 hours per week. I use that thought experiment and example for how 20% time, or, alternatively 8 hours, is not sufficient to teach a class. I also tried out only spending 8 hours per week on teaching, some summer prep, plus 4 hours per week during the semester delivering, and still got better than 4.3 out of 5 evaluations, so maybe the bean-counters are right from the diminishing-returns perspective. More importantly, based on their work I think my students learned and could do what I wanted them to do, so if I can get students to achieve my learning outcomes, with above-average evaluations, with minimal time, I probably should keep doing that.

The 20% number is probably right for the time I spend advising a cohort of [approximately 30] undergrads about their class schedules, registration, and progress towards their degree, plus my time spent on other committees.

Everything else is research. Advising a postdoc, three graduate students, and six undergraduate researchers takes more than 24 hours per week, so either the 60% weighting is wrong or the 40 hours per week assumption is wrong. Still, we're learning things about the world and getting publications out and having fun, so it feels like the 25 to 40ish hours I do devote there are well spent. I'm also committed to trying to stay as close to 40 hours per week as possible overall while maintaining the sense that I'm on-track to be awarded tenure.

That's a roundabout way of saying that I am confident about tenure and I feel I have a plan for the next three years that'll keep me confident both about tenure and my family continuing to like having me around. The way I think about this is informed by really enjoying my lab, my classes, and my department, but having those responsibilities prioritized after the responsibilities associated with the enjoyment of my kids, spouse, and being outside.