

**TO EVERYTHING THERE IS A SEASON
PERSONAL REFLECTIONS ON SYSTEM DYNAMICS
AND THE CALLING OF “UNIVERSITY PROFESSOR”**

**#1. TO EVERYTHING, THERE IS A SEASON. PERSONAL
REFLECTIONS ON SYSTEM DYNAMICS AND THE CALLING OF
‘ PROFESSOR’**

Thank you and wonderful to be here.

My title, this morning, as many of you would know, is quoted from the Book of Ecclesiastes in the Old Testament. This talk is about the seasons, purposes and times of becoming a university faculty member and then living one’s professional life according to that calling.

I am assuming that most of you are at some stage in the process of seeking a Ph.D. or deciding whether or not to do, so. I will give particular attention to that process.

I am, assuming further than many of you hope to become Professors. Of course some of you already are. Offering thoughts on how to succeed in that quest will be another topic, though covered in less detail.

There are other career and life paths, open to you of course, For example Dana Meadows, a friend of many years, resigned a tenured professorship at Dartmouth College, founded an intentional community, wrote newspaper columns for years and won a MacArthur Genius Grant.

But the seasons of my professional life, including a decade as Director of Doctoral Studies and, subsequently, nearly a decade coaching young faculty members on their careers as head of American University’s Center for Development of Teaching, Learning and Research, are those of a Professor and what I know best. They mostly provide the lessons I will share with you. **(CHG SLIDE)**

**#2. MANY, MANY THANKS TO... AND INTRODUCING MY
RESIDENTIAL COLLEAGE FOUR COLLEAGUES.**

Before proceeding further, let me express many, many thanks to Erica, Benedicte and Natalia for their creative hard work and leadership, not only organizing this colloquium, but other student chapter events

throughout the day and the conference. Envisioning and then creating your futures – that's what many of you are doing at this colloquium – is a challenging enough task in itself. For these student leaders to have set time aside on their journey to help you with your creative endeavors, is a gift for which we should all be thankful.

Let me also acknowledge four of my colleagues from Singapore, partners in our exciting experiment, teaching System Dynamics to undergraduate students, enrolled in Singapore's National University, Residential College 4. Could you please stand if you are with us, this morning. They are Elizabeth Ong, my former colleague at the Lee Kuan Yew School of Public Policy; Dr, Jenson Goh, our Director of Studies and two very new colleagues. Dr, Yang and Dr, Sreeni. I hope you will seek them out, introduce yourselves, share your stories and learn more about Residential college 4. **(CHANGE SLIDE)**

#3. CULMINATING YOUR JOURNEY “HONORING OUR COLLEAGUES, ERICA, BENEDICTE AND NATALIA”

Motivating what I will be sharing, this morning, is the belief that most who embark on the journey towards becoming, a tenured professor have all-to-little understanding of the institutional culture that awaits them. By this I mean norms, customs and practices, many unwritten, that shape behaviours of those inhabiting and playing key roles that culture. Since those norms, customs and practices will affect your futures, you should understand them as best you can. Deepening that understanding is one of my goals this morning, and in conversations that may follow

Let me begin by sharing that the decision to become a university professor at age 27, in 1965, is one that I have only twice reconsidered, despite occasional pitfalls and frustrations. There are two sources of the greatest rewards, I believe. They are opportunities to be creative and sharing what you are creating and learning with others.

When I began thinking about this talk, my goal was to simply share some practical “tips, “ based on what I have experienced and learned about the process of successfully completing a program of doctoral study. However, since I believe the principal justification for getting a Ph.D. is to become a professor, I decided it might be useful to situate my remarks in a larger context.

While for some, there is an aura surrounding the Ph.D, and being able to precede your given name with “Doctor “ others have described it as a professor’s “union card” . The reality is somewhere in between. That balanced perspective makes the task of earning a Ph.D. more practical.
(CHG SLIDE)

#4. The Journey: Doctoral Student to Professor Emeritus and Retirement. Here is a brief road map and introduction to our journey. While it may seem daunting, particularly the emphasis on writing and publishing books and articles, I think it is realistic. It reflects my own experience and that of others I know.

The specifics and timing may differ of course. My highlighted concluding remark about balancing teaching, research and service to the community, according to your temperament and values, should be applicable throughout the process.

However you need to be realistic about what provides the greatest leverage for commanding resources and achieving your goals in academic communities. As I already noted, most leading universities are now “benchmarking” the performance of their faculty members based on the number, and quality of their of publications. However, remember too, that John Sterman is among MIT faculty members most recognized for outstanding teaching. **It is possible to excel in multiple areas simultaneously.**

Perhaps what you may find most surprising is the degree to which senior faculty members become involved in outside activities and the degree this is not only accepted but encouraged by university leaders. A second surprise is the way one can negotiate to ensure that major administrative responsibilities are compatible with a research agenda, even one that involves substantial international travel commitments.
(CHG SLIDE)

#5. CONSIDER SOME ROLE MODELS TO SERVE AS YOUR GUIDES

When they are seeking guidance, I often point students and younger colleagues toward role models. Pictures of Jay Forrester, Dana Meadows, John Sterman, Dennis Meadows and Peter Senge, with words of wisdom from each, adorn the visible outside wall of my RC4 office. I hope this will inspire and empower my students.

Mentors and role models, including Professor Forrester, most notably, have played a vital role in my career development and I recommend this source of guidance and empowerment to you as well.

Role models illustrate what is possible and our field provides great flesh and blood examples. Check out the publications of those listed on this slide and perhaps others not listed. Read some of them if you haven't. Use this conference to make connections. Don't be shy about this. Probably you can schedule tutorials or conversations with some of them, including me. (PAUSE)

So now let's turn to a subject of more immediate relevance to many of you, completing a Ph.D. Program. **(CHANGE SLIDE)**

#6. THE FIRST STEP: TAKING TIME (3-5 YEARS) TO PREPARE FOR DOCTORAL STUDY PRIOR TO ENROLLMENT. WHY THIS MAKES SENSE.

Preparing for doctoral study as have recommended may be the most debated of my many pieces of advice. I recommend that recent undergraduates, and even students who are a bit older, devote from three to five years to this preparation phase, ideally completing it before you are 30. The tasks listed are those I would recommend.

Taking three to five years, for stocktaking and especially gaining management experience and skills, gives you time to mature, gain perspective, and become proficient in an area where many university faculty members are deficient. My five years as a Naval officer, helping my wife, Jan Richardson, manage high fashion boutiques and simultaneously serving as a big city political ward leader were invaluable experiences.

Many university faculty members go directly from the undergraduate classroom to the research library, laboratory and graduate school classroom. But, eventually, you may want to organize large courses or research projects, set goals, plan expenditures, create budgets, design and implement programs and activities. You may become a department chair, Vice Dean or program director. Too many university faculty members faced with these tasks must learn management skills on the job and don't perform them particularly well.

You may be puzzled as to why I recommend gaining System Dynamics proficiency before applying to a Ph.D. program. The reason will be apparent to many of you who may have developed an interest in System Dynamics but are enrolled in a Ph.D. program that provides little in the way of System Dynamics modeling theory, practice, and applications. Entering your Ph.D. program with these skills and knowledge in hand is a great advantage. You can then adapt them gracefully to the circumstances of your school or department.

For completing the System Dynamics apprenticeship I am recommending, there are many ways to become proficient. Check out the Society website and ask around. The important thing is to be disciplined about pursuing this goal, whatever path you choose. Even if you decide not to pursue a Ph.D. or don't finish. You won't regret having management and system dynamics experience.

#7. WHICH UNIVERSITY AND PROGRAM SHOULD I CHOOSE?

I have saved the two most important goals until last: choosing a department in which to pursue your Ph.D. and a supervisor to mentor you as you complete your degree. **These are two of the most important decisions in your life and it amazes me how little attention many students devote to them.**

Here is a list of programs, culled from the System Dynamics Society website that include at least one course and/or faculty member with an interest in System Dynamics and perhaps the ability to teach a course. Obviously admission to the department will have to come first chronologically. However in order of significance, the choice of a supervisor may be the more important.. Moreover [getting a Ph.D. labeled "System Dynamics" as prerequisite to a meaningful career is not only unnecessary, but may not even be desirable.](#)

It may be better to first identify yourself as, for example, a scholar of Public Policy, Political Science, Management, Social Work, Education, International Medicine, or Biology.. (You notice I did not include Economics, which can be a more difficult challenge).

Why do I say this? There are relatively few University Departments of System Dynamics or even ones in which System Dynamics is a major element. Relatively few of you will be able to pursue a program such as, for example, that offered by MIT, WPI, Bergen, or SUNY Albany. Nor are there many university faculty openings labeled “System Dynamics Modeling.”

The openings are in subject matter areas such as those listed, and many more. Moreover a **strength** of System Dynamics is its usefulness across many disciplines. I have held faculty positions in Political Science, Systems Engineering, Technology of Management, History, International Relations Theory, International Development and Public Policy. RC4 is my only appointment ever to bear the label “System Dynamics, However “System Dynamics has been valuable my students in all of them.

CHANGE SLIDE

#8 CHOOSING AN ADVISOR, YOUR MOST IMPORTANT DECISION.

This brings us to the choice of a mentor and Ph.D. advisor , the most important choice of all in selecting a Ph.D. program and one of the most important personnel decisions you will make in your entire life. I can not emphasize strongly enough how much focused attention you should give to this.

In some non-US Programs, students actually sign up with an advisor before being admitted to the program. However often, the process is more haphazard and may even be initiated by students, long after they have enrolled, while they are completing their coursework. They may have little knowledge of what is required for an advisor to be an effective mentor and, even more important, an effective departmental advocate. This slide lists some of the most important qualities of the ideal advisor. **CHANGE SLIDE**

Careful research and choice, following my guidelines, will help in finding a good advisor, but what if things don't pan out? Don't just endure the pain. Seek out help, from your Director of Doctoral Studies, your Department Chair, or another faculty member, with clout, if you know one. Don't endure an unproductive and especially not an abusive relationship. Take a stand, which will support your own personal program, and may also help to protect others who could become victims of incompetence, indifference or abuse. But avoid these problems by doing whatever it takes to find a great advisor.

CHANGE SLIDE

9. COMPLETING THE DOCTORAL STUDY RITE OF PASSAGE AND WINNING ADMISSION TO THE ACADEMIC TRIBE

Once again, it is important to remember that the process of completing the Ph.D. has its tribal elements. Departmental faculty members and members of the larger university community are members of the tribe to which you are seeking admission. If you have chosen wisely, your dissertation advisor will be eminent among tribal elders. Here are some tips that may both help speed the process of completing the dissertation and getting it published.

Choosing a dissertation topic. Remember that, with rare exceptions, the dissertation is an exercise to demonstrate your grasp of the field as it is conventionally defined, not to break new theoretical ground. An efficient dissertation is one that fits within your advisor's domain, applying his work to an interesting case rather than seeking to break new theoretical ground. In my scheme of things breaking new ground begins in your postdoctoral research year.

Completing required coursework in your school or department.

Most doctoral level courses and seminars will require research papers. With some good planning, it may be possible for a number of those papers to become, perhaps with minor modifications, chapters in your dissertation. This will speed the process of completing your dissertation, motivate you to do better work and impress faculty members teaching the courses who receive such papers.

The dreaded written comprehensive examinations in related fields within your discipline, often required for the degree will often be administered by elders in other tribal subgroups, over whom your powerful mentor may little influence.

In my case, having sailed through coursework in record time and nearly completed my dissertation, I failed one of my three written comprehensive examinations. I had decided this was an opportunity to show my creativity, producing a critique of the field on which I was being examined rather than demonstrating my mastery of conventional wisdom. After receiving a failing grade and sharp tongue lashings, I meekly produced a positively framed catalogue of conventional wisdom, in response to questions on a second examination. and received a passing grade.

The “Oral Defense” of your dissertation or comprehensive examination on your dissertation.

By picking a topic within the domain of your advisor’s research, as I have advised, you can more easily produce a credible piece of work, though with some original content. Can you incorporate System Dynamics? Of course, so long as it fits within your advisor’s scheme of things and he or she approves. If not, save the System Dynamics applications for later. The oral defense, then can be a friendly discussion between senior colleagues and a new initiate who is about to be welcomed into the tribe.

With luck, complemented by hard work on your part, your advisor may be so pleased with your dissertation that he or she will send it to a university press where his work may be known, and they will accept it for publication. Along with articles, perhaps co authored with your advisor, publication by a university press can be of great help in winning postdoctoral fellowship and your first job.

CHANGE SLIDE

>> 10. CHOOSING “THE PATH LESS TRAVELED BY” A POSTDOCTORAL FELLOWSHIP

After completing your dissertation, assuming your goal is to begin a career path with a position as Assistant Professor, a postdoctoral fellowship with a flexible mandate can be creative interlude. When I completed my dissertation and it had been accepted for publication, the Social Science Research Council had just initiated such a post doctoral program and it still exists. With supplementary funding from the National Science Foundation, My advisor, Robert Holt and I sought to learn and then apply theories drawn from mathematical linguistics to issues of governance in newly independent nations. Our work produced no breakthroughs, however there was one good outcome. The mathematics I learned helped lead me to a faculty appointment in systems engineering, to Urban Dynamics. Global modeling and lifetime career in which System Dynamics applied to public policy has played a major role.

CHANGE SLIDE

>> 11. The Journey (Revisited)

In my earlier outlines of this talk, I envisioned taking you past further milestones. However I have spoken enough. It is time for you to speak and me to listen. Should you be interested, I will be happy to reflect further on this possible “path less traveled by” from pre-doctoral student to professor emeritus, in individual or small group conversations from the vantage point of your own goals and priorities.

Today, I find myself seeking more and more time focused on system dynamics modeling, writing, and one-on-one mentoring of students though spending less time in the classroom. I take particular joy in drawing on my experience. to write recommendation letters for my Singaporean and Chinese students. I also have another book to write and other projects to complete.

Let me conclude with a prayer that seems relevant to those of us who are Professors or, like you are, contemplating that calling as their life. In his book, *Ethics for the New Millennium*, the Dalai Lama mentions that he repeats it at the end of each day.

May I become, at all times, both now and forever.

A protector of those without protection.

A Guide for those who have lost their way.

A ship for those with oceans to cross.

A sanctuary for those in danger.

A lamp for those without light

A place of refuge for all who lack shelter,

And a servant all those in need.