Dear Alumni,

This – outrageously long - ‘Letter to Alumni’ announces an important fact: we have arrived at our Silver Jubilee. That is to say, we welcomed our 25\textsuperscript{th} cohort this morning. You may remember the moment yourself, when you arrived to study science communication with us: a room full of people who don’t know each other, embarking together on something new. Now, at 25 years old, the Science Communication Unit has reached its maturity and, we suppose, is in the prime of life. Feelings of delicacy prevent any self-congratulation; yet this great age – in the fevered environment of higher education – looks worth a tea and cake, and two cheers. More obviously worth shouting about is the achievement of our alumni, which by now is writ large everywhere.

Might our alumni have a style of science communication, a certain way of doing things? Something very influential happened to you while you were with us. It is interesting to draw connections between what you do now, and what you did then. This letter in most ways talks about things that happened to you some time ago. But I hope in some way it sets up echoes with your current projects.
A letter is just half of an exchange. A letter is always waiting for a reply. You’re busy I know. You probably won’t even have the time to read this. Still, print it out and put it in some place where it will catch your eye eventually. If that fails, give me a ring and I’ll drive over and read it out to you. And wait for an answer.

*Our alumni*

Put simply, you are the reason for our success. Or anyway a big reason. Each year we find applicants declaring it was an encounter with an alumnus that sparked the interest in our programme. But the main thing that continues to link you to us, in the best and most helpful way, is your work. In every place where science and society are finding ways of getting by, there’ll be one or more of you ploughing a furrow, and doing it well.

This is well-known. Tom Miller, long-time head of communication at Imperial, told me once: ‘The important aspect of your alumni is that they assert soft power’. He was referring to your influence on the way science holds itself. He was implying too that Imperial College, so committed to the cause of science, recognises the value of the strange beast it harbours in its corridors, viz the Science Communication Unit.

When our applicants tell us they esteem the Unit highly, even before they arrive, the work of the alumni figures strongly in their reasoning. It is a congenial or inspiring encounter with an alumnus that turns the applicant our way. In other words, the way you go about your business, and what you do, this eye-catching. For the staff of the Science Communication Unit it is motivating to see you in such numbers doing original, honest and diligent work in the area we trained you to enter.

*Becoming a science communicator*

Do you remember your first few weeks with us? What it felt like? These days, at the end of Induction Week, we have an evaluation. In a rare and important period of silence everyone spends thirty minutes writing out their current thoughts on the step just taken – enrolling on a master’s in Science Communication.
The comments we get are revealing. There is relief among the students that here is a room full of people who also have been working out how best to use their science: they are good at it, they enjoy it, they just don’t want to go into science research. Arriving students are astonished and delighted to find so many people with whom they have common cause.

Students often comment they are nervous about the breadth of topics being unleashed. Some are alarmed at there being ‘... plenty of people here who sound hugely skilled already’. Yet as Induction Week turns over the stones on many different aspects of the Unit’s work, the new students also see that the year ahead is one of experimentation. New things can be tried out, in safety. Often a student arrives with an interest in one skill, and ends up following another.

In the comments after Induction Week, it is the sense of pleasure that is so striking:

‘I am intensely looking forward to creating a body of work I am proud of.’

‘... everything to do with creativity, which I have missed a lot in my earlier education.’

‘It was quite overwhelming but also refreshing that on the very first day already we were encouraged to just talk about and express our own opinions.’

‘If I am perfectly honest, I am very much excited to have a year all to myself, to finally think about what I want to do, and to have a bit of time to do other interesting things I like.’

‘I’m in the right place.’

Sounds familiar?
Our master’s programmes take students’ scientific knowledge for granted. What we don’t take for granted is any systematic experience of science in the media. We don’t assume well-developed practical skills, nor knowledge of various branches of the humanities and social sciences: philosophy, media studies, ethics, history of science. If science or engineering degrees did these things, we in the Unit might be out of a job. For the task of a science communication master’s degree is to unhinge you, just a bit, from the science world view. We want to prise you out of your close relation with science, and make you take a new look at what for years you’ve taken for granted.

All this becomes quickly clear to the new intake. The most obvious sign of the new understanding is the way from the beginning students are talking. Oracy is a key element of the programme, a fundamental particle. Induction Week starts at noon on the Monday, with the new students looking for and then crowding into Room S303a/b. By 12:05 the volume of the talk is high and increasing. There are times in education when quietude is a good idea. Science education however has become dependent on the wrong kind of silence. On our programme students talk to each other in class incessantly. It’s the rule.

Our view is this: to be a good science communicator you must first learn to be communicative. This comes before targets and objectives and grades. The issue reminds me of a saying by the 20th century contemplative Thomas Merton, a proud graduate of Columbia University and a teacher: ‘If a university concentrates on producing successful people, it is lamentably failing in its obligation to society and to the students themselves’. Merton isn’t diminishing success. What he is saying is that success comes as a result of something else – something that might not look like success at all (such as stuckness, or confusion or even laziness). Merton’s point is that education directed too simply at ‘success’ will, paradoxically, fail.

We want the students to be successful and they will be. But we are not pushing them for grades or targets. It’s the deeper attributes and the practical skills of communication that interest us, and how they can be best shared on a
university course. We provide the ingredients, the background hum, and you provide the success – maybe years later.

Fiction gets this right more often than management directives. In The Prime of Miss Jean Brodie, by Muriel Spark, you’ll find a vivid (and brief) description of how tricky it is when the spirit of freedom sidles up to formal education. The protagonist of the book, school teacher Miss Brodie, explains to her ‘girls’ what is wrong with the head-teacher, Miss Mackay: “The word ‘education' comes from the root e from ex, out, and duco, I lead”, says Miss Brodie. “It means a leading out. To me education is a leading out of what is already there in the pupil's soul. To Miss Mackay it is a putting in of something that is not there, and that is not what I call education, I call it intrusion...”.

We see things the same way. When our students arrive they know a great deal about science and they have experience of science communication. Collectively – we are talking about 55 articulate students – there is a lot of expertise here. There is no point in intruding. Better to ‘lead out’.

**Imperial and Us**

No doubt you are proud to be Imperial graduates. In its intensity, its central London location and its distinguished reputation Imperial College is an endlessly fascinating place. And it is for many reasons a good place for you to have learned your craft. One reason is that it is a cauldron of science and engineering. Another is that South Kensington is a stimulating quarter: a fair number of you work or have worked in its museums. Many of our students are new to London and make much during the year of its status as a science communication hub.

When you were with us, you probably didn’t speculate much about how the Science Communication Unit plugs into Imperial College, organisationally. Yet how we fit in to the Imperial scene does have some bearing on how we configure our programme, and so is relevant to you. Here then is a rough guide.
The stand-out feature of SCU’s relation to Imperial is that we don’t – whisper this please – actually do any science. Nothing wrong with that of course, but it is an unusual feature at Imperial. A lot of what we think about, and teach, is not quite Imperial’s comfort zone: the humanities as a way of understanding science; a constructivist view of scientific knowledge; an interest in narrative; courses in media studies and film theory; and scores of student videos and radio programmes where there is no analogue of David Attenborough or Brian Cox.

Yet these cross-grain activities of ours have never got us into trouble. Rather the opposite. For at the same time as universities have become hyper-directed and managed environments, and so perhaps a potential problem for our free-wheeling style, science communication has meanwhile became a field of great interest to many working scientists. When the government’s Chief Scientific Adviser Sir Mark Walport said ‘The science isn’t done until it is communicated’, he did us all a favour. Our phones ring constantly these days and we have many conversations with departments about the communication of science and about training for scientists. Fairly frequently we put on courses for College folk and earn an honest penny.

In fact we have to be careful not to do too much: we are cautious about growth. The success of the master’s programme depends on something simple: the cohort feels like a community, which ripples out to the alumni. We hope the congenial and edifying environment we work hard to maintain continues to echo among our students long after they have left Imperial.

If you go to the College website you’ll find there the caption, declared I think with pride, that “Imperial is the only university in the world to focus exclusively on science, medicine, engineering and business”. This isn’t precisely true. For fifty years the College has been providing humanities courses also. Now badged as ‘Horizons’, and operating out of the Centre for Languages, Culture and Communication, some 4000 students takes humanities courses each year. These are time-tabled during the College day and in most cases carry credit. In
short, Imperial College doesn’t focus *exclusively* on science, medicine, engineering and business.

Probably you aren’t surprised at the enduring success of humanities provision at Imperial. Many STEM undergraduates (though not all) feel some loss at the termination of their arts education, and want to make amends. Further, the humanities and social sciences are vital forms of knowledge for better understanding science-society relations. To quote Mark Walport once more, “Put simply, the perspectives of historians, psychologists, geographers and others - alongside anthropologists - are essential to sound policy development and delivery”. Walport’s comments were made in the context of the Ebola epidemic, but his point applies across the scientific disciplines.

You’ll remember our steady drum beat: science communication needs to keep warm company with the humanities, the social sciences and the expressive arts. One of the favours science communication does for science is in being a repository of ideas from many different fields; this is one of the pleasures of our trade, and something that attracts students to our course. The techniques and traditions of the humanities are helpful in honing your critical skills, so that you can better deal with argument, ambiguity, and controversy.

None of this sounds as though the Science Communication Unit can reliably be considered an advertising agency. Perhaps we can safely be called science’s ‘critical friend’. Our students go to work in the media, in communications, in museums and in policy, and in much else besides. The content of their work, usually, is science and engineering-based. It just turns out that to deal with the ideas of science honestly – ‘communicate them’ – requires imagination, a critical mind, practical skills, and an ability to stand back and question received truths. Those kind of attributes are applicable to many arenas: and we were reminded of this last year when our alumnus Wael Dabbous gave a seminar on his documentary work in Syria.

Our ability to synthesise tech skills with the humanities depends on the fact that we are based within the Centre for Languages, Culture and
Communication, and thus work alongside linguists, philosophers and others. You may know that Imperial College is organised into four Faculties: Natural Sciences, Medicine, Engineering, and Business. To the Faculties are devolved the main business of College life, that is research and teaching – a vast enterprise. At Imperial every single master’s course bar one sits within the Faculty structure. The exception, you’ve guessed it, is the Science Communication masters programme.

There’s pleasure to be had from sharing a corridor with people who know about Rilke and Dante. And like some strange organism in a Madagascan rain forest, we’ve been able to develop our exotic aspects free of mainland pressures (the metaphor is far from perfect). It is a good arrangement as we are completely in touch with the College mission, and proud to be a member; but in truth our orbit, though stable, is some distance from the centre. It’s this point of equilibrium that allows our very particular philosophy to be maintained. When you arrived with us, and set to work to re-establish in your heart and mind a new relationship with science, it was Imperial’s commitment to humanities provision that acted as a key element of your background support.

Practical things
And then there are the practical skills: the magic worked by Bob Sternberg, Gareth Mitchell, Alexandra Fitzsimmons (who recently joined us), Wendy Barnaby and Jamie Condliffe. In the hands of these instructors the practical projects share some common features – advanced, professional, artistic, emotionally-alive. Always the work is exploratory and always it respects its subjects.

Good practical work demands an almost alarming sense of purpose and many of our seminar speakers make the point with startling clarity: you’ll remember the way Chris Riley and Carlo Massarella discuss their film-making. The same can be said about all our visiting speakers, whether their field is TV, museums, radio, policy and beyond. Ed Yong, Helen Pearson, Becky Purvis, Greg Foot,
Richard Wylie and Heather McGregor have all been in recently, and charged up our students.

The summer projects are intense experiences. The students’ daily life oscillates between steady diligent work and accelerative moments of creativity. More generally ideas explored in the practical work are markedly influenced by the overall humanistic approach of the programme; and the way the students work as an ensemble shows our commitment to the ideals of collaborative learning.

Let’s hope this coming year is a good one. And if you’d like to come in and talk to the current cohort about your own take on things, just let me know.

Best wishes,