Analysing our membership data

1. **Background**

   1.1. *Our Strategy* commits us to having the strongest and most inclusive democracy of any students' union in the UK. Metrics to measure success against this target include turnout rates in our key election cycles, grouped in high-level categories such as study type or study year.

   1.2. We already demonstrate sector-leading engagement in our election cycles, with turnout achievements including (all from 2016):

      1.2.1. 45.47% overall turnout
      1.2.2. 61.3% turnout for Undergraduates
      1.2.3. 28.6% turnout for Taught Postgraduates
      1.2.4. 25% turnout for Research Postgraduates

   1.3. However, engagement is not growing and in fact declined slightly in the Leadership Elections 2017 across each one of the above categories. While our overall participation figures are the best in the UK compared to other students' unions, with less than half of our members actively participating in our flagship democratic event, this is objectively an area for considerable development and improvement.

   1.4. Comparison of turnout figures from past March election cycles demonstrates that there has been no significant breakthrough in turnout since 2012 or earlier. Ongoing demographic changes within the student body, such as the increased proportion of members who are Postgraduates, pose an structural challenge to maintaining and increasing participation levels.

   1.5. While we have completed reviews of our election cycle planning and performance, we have not previously undertaken a dedicated analysis of engagement beyond the high-level figures demonstrated above and the statistics shown on our website through the voting period.

   1.6. In order to make progress towards our strategic goal of building Britain's strongest student democracy, we must develop new methods to not only understand the engagement of our members, but make tactical decisions based on new insights to increase their engagement.

2. **Understanding engagement**

   2.1. We have a rich dataset of membership information built up over many years, including election participation, CSP membership, volunteering hours, online shop product purchases, website interaction, Imperial Plus or Award participation, and demographic information such as age, study details, and nationality.

   2.2. I propose we contract students with expertise in data science to apply their learning to our dataset. While the exact analytical task would be determined in collaboration with these

students, my proposal is that we task them with building a model that algorithmically produces an 'engagement factor' for each student, based on their demographic information and existing interaction patterns with Imperial College Union.

2.2.1. For example, a current Officer Trustee with previous roles within a Constituent Union and who has voted in every election cycle in recent years could have an engagement factor of 99, indicated a near-certainty that they would vote in an upcoming election.

2.2.2. Conversely, a Postgraduate undertaking a part-time, online course provided by the Business School who has not previously engaged with Imperial College Union in any way could have an engagement factor of 5, indicating a 5% change they will vote in an upcoming election.

2.3. Such a model would allow us to rank our existing members by their 'engagement factor' in turn enabling us to divide our membership into distinct cohorts – for example, those with 0-20% likelihood of engaging, through to those with 80-100% likelihood.

2.4. We would then be able to analyse the features and demographic information that the students within each cohort have in common – understanding, for the first time with statistical evidence, patterns of engagement that can be predicted by the characteristics of any given student.

3. Increasing engagement

3.1. The above exercise should provide us with new or confirmed insights into the engagement patterns of our members. These can in turn be used by staff to guide the development of communication plans for election cycles, ensuring that the messages delivered to students predicted to be in each cohort are tailored to their demographic and engagement patterns.

3.2. Cohorts would be characterised by common features that will enable us to understand the aspects of Imperial College Union most relevant to them, and emphasise that in communications.

3.2.1. For example, a cohort whose engagement might be characterised by CSP membership and purchasing tickets to Beit Bars events can be targeted with messages related to that activity.

3.2.2. Alternatively, a cohort whose engagement is lower, and their common characteristics might be based on their subject, campus location or age, can be targeted with a different set of tailored messages.

3.3. The success or otherwise of this analysis could be measured by predicting the engagement of each cohort in advance for the Leadership Elections 2018, and measuring the difference between predicted and actual engagement after the new communications plan is enacted.

3.4. Alternatively, the model can be tested by isolating the engagement data from one past election so it is not used in the building of the model, and then testing the model on that

dataset to see if it accurately predicts the actual engagement of that election.

4. Making this happen

4.1. We have a highly active Data Science Society, one of our fastest-growing student groups with almost 600 members at present. College also has a Data Science Institute as well as offering an MSc in Business Analytics

4.2. I have made contact with representatives from each group to gauge their interest in my analysis proposal. For students, I have emphasised the employment and skills development opportunity that I am offering.

4.3. I intend to develop a simple project brief before Christmas, with input from student or staff data scientists.

4.4. I intend to bring a business case to SMG to approve the hiring of students on a temporary basis, on an hourly rate. I estimate a gross hourly rate of approximately £15, in line with skilled temporary student staff employed for activities such as Imperial Plus training and design work.

4.5. I hope to avoid further costs such as software licenses or hardware (for data analysis software packages such as SPSS) by accessing existing licences or subscriptions owned by College; however there may be some fixed costs yet to be identified.

4.6. As an estimate, if we contracted a team of two students working for a total of twenty hours throughout early January, temporary staffing costs would be in the order of £300 – 400 and fixed costs could be as low as zero.

4.7. The results of the exercise would be used by the team delivering the elections to draw up and execute a communications plan throughout the election cycle, from late January through to the end of voting in March.

5. Further steps

5.1. The method and results of this analysis would be made available to teams across Imperial, as the cohort model and its insights could be useful to several teams, particularly in Commercial Services and Marketing & Communications.

6. Recommendations

6.1. That Communications Committee discuss and approve the above proposal.

6.2. That Communications Committee discuss potential methods of applying fresh insights to communication plans.

6.3. That Communications Committee discuss potential methods of evaluating the success of this proposal.