

## Inspiring a community

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### Abstract

For countless generations humans have gazed upon the heavens in awe and wonder. This paper considers approaches in effective communication to groups that have formed, for whatever reason, to learn about astronomy and the night sky. Inspiring small communities is a step on the path to ensure the wider public value astronomy. Achieving this makes it easier to obtain support and acceptance for expansive, and sometimes expensive, programmes.

### Introduction

The heavens have, throughout the course of human history, served to inspire and influence countless generations. The foretelling and viewing of a celestial event in ancient civilisations might determine, for example, a change in cultural and political circumstances.

The night sky is a powerful hook for engaging with many communities. Everyone likes to know the objects of the night sky. As well as the patterns of the constellations, the appearance of something abnormal, while not philosophically significant, still resonates with the public today.

Influences from antiquity, some astronomical, some philosophical, still exist today. Communicators and educators in astronomy need to be aware, therefore, that it is still possible today to create influences of varying magnitudes. A small change can grow over time and become part of the public consciousness. It is not always possible to create an overnight revolution, but over a lifetime it is possible to leave an imprint in many places. As an example, the rise in popularity of sidewalk astronomy is a lifetime's work reaching out to a handful of people at a time.

The sighting of a comet, an eclipse, the Milky Way, a meteor shower, or similar event, stirs up the inquisitive side of human nature. Questions arise as to the nature of the objects and their inter-relation, what is the bigger picture? It is in answering such questions that a community can become inspired.

This paper looks at the possible steps required to inspire communities based on the author's own experiences in teaching adult education classes on the night sky.

## The nature of community

A community can be viewed as a group of people brought together for a period of time with a common goal or objective. At the end of that period, if the group has been suitably inspired, it is possible for the community to go out and pass on their enthusiasm and knowledge to other people.

A community can take on many forms and sometimes be transient. For example, the gathering of people to watch a solar eclipse is a large, short-lived, community that is accessible for a brief period. By contrast, a web-based community can be quite small, but long-lived. Each community, therefore, presents a different challenge in the creation of a lasting influence.

Of primary concern, therefore, is understanding the nature of the community and why it has gathered. It is often easy, with a desire to impart knowledge, to overlook this element. The event must be the focus of a short-lived community, such as for an eclipse, but for a longer-term community there is more scope to explore a range of topics. The challenge in the latter case is to broaden the scope while retaining interest.

## Questions

The formation of a group with a specific goal that meets at regular intervals determines the agenda. While the details of each meeting are down to the lecturer, the group sets the context. This implies that the community already has a set of questions. Some are very simple, such as, “What is that star I can see from my bedroom” and others more complicated, such as “What is a star?”.

It is easy, however, to ignore the questions that arise from the community and focus on a topic of personal interest. It is necessary, therefore, in all forms of communication, to either ascertain specific questions in advance, or pre-empt likely questions. This is not always easy to do, but it is a vital if a community is to be inspired.

People listen to experts because they value the opinion and they hope to find answers to questions. Individuals tend to have less affinity with the lecturer and less of a desire to hear about a different topic the longer questions remain unanswered.

Answering questions through general dialogue as well as in specific sessions engages the group. A link forms between the group and the lecturer that starts to open up a path for further dialogue. This is the beginnings of inspiring a community.

## Inspiration

Inspiring communities involves many steps. A first is to answer their questions, but this alone does not inspire. Simply stating facts is ultimately dry and insipid and creates an informed community.

To inspire requires additional effort and language used is a key part of the process in shifting from information to inspiration. People enjoy listening to a good story. In explaining the night sky, for example, showing imagery and interweaving facts, legend and anecdote creates powerful mental images that not only reinforce learning, but also raise interest.

What is required, therefore, is a consolidation of additional information that stimulates discussion of ideas and concepts and allows the presentation of a much broader picture. The underlying information should come from many different and varied sources. In an ideal case, the story should be built in layers that gradually introduce more complex ideas and concepts.

Consider the following two narratives, either of which meets the basic requirement of answering questions about objects in the night sky.

### **Narrative 1**

*There are two main stars in Orion: Betelgeuse upper left and Rigel lower right. In addition, there is the belt of Orion – three stars in a line, which, if you extend it in one direction points to Taurus and in the other to the bright star Sirius.*

### **Narrative 2**

*There are two main stars in Orion. The star on the upper left,  $\alpha$ -Orionis, also known as Betelgeuse, is a red supergiant. It is one of a number of candidate stars to end its life in a supernova explosion. Because of its proximity, approximately 500 light-years, were this to take place it would be visible in broad daylight. The star on the lower right,  $\beta$ -Orionis, also known as Rigel, is a very hot, young, blue star. The belt of Orion is a pointer to the Constellation of Taurus and the brightest star in the sky, Sirius, in the constellation of Canis Major. Sitting just below the belt is the Orion Nebula, which also goes by the classification of M42 from the catalogue of comet-like objects compiled by the French astronomer Charles Messier.*

In Narrative 1, although addressing some basic questions, the community has been informed rather than inspired. The information presented would also be contained within any reasonable publication on the constellations. Yet this is often the level of material presented. The community requires more if it is to be inspired.

In Narrative 2, by introducing contextual information a new universe presents itself to the community. All of a sudden the hidden objects, such as nebulae and galaxies, have a context and a place in the sky. There is no limit to this path of exploration – because it is in addition to answering the basic question. Topics often considered out of reach for most people such as multi-wavelength astronomy, graphical representations and similar, are now in reach of any audience because they are being presented within a wider context.

Politicians frequently employ such a tactic to good effect. They take a question and make an initial answer that to some extent is a response, but as the answer evolves they shape it to convey the message they want to promote. What infuriates people is when politicians avoid answering the question and immediately switch to their own agenda. Although people are, generally speaking, not as emotionally involved in astronomy as in politics the principle still applies.

Having begun a process of inspiration by providing a range of additional information, further questions arise that often extend much further than the original scope of the material. Once this process starts a critical point is achieved and the community is to some extent now in a position to share its knowledge with others.

The members of small classes are often keen to share their newfound knowledge with family and friends. This is why a strong narrative is important. Firstly, it is easy for them to relate a story and secondly, they have plenty of information to pass on.

## Benefits

Today, the global community is not a stakeholder in astronomy. It has not reached a point where it either desires, or sees the need for successful astronomical programmes. One result of this is to create the strange situation where justification for a programme arises out of the success of a programme. This means revealing little until success, and if there is no success then everything remains quiet. This strategy may appear to work, but it is a defensive strategy and is reactive.

Inspiring communities can, as discussed, lead to the public becoming stakeholders and it is no longer sufficient to be reactive. A proactive strategy, however, requires effort before a programme commences. It requires careful planning and the gradual promotion and selling of ideas and concepts in ever increasing detail. Just like the analogy with Orion, feeding people more information makes them aware of the bigger picture and supportive of programmes.

A main benefit from this is to reduce the fear of failure. Failure occurs in many forms in astronomy and space science, from a cloudy night to the explosion of a rocket to the failure of an instrument, or a spacecraft. Often the fear of any of these happening prevents communication before an event. This fear arises because the groundwork of investing in and inspiring communities has not taken place.

A clear, engaging message has two advantages. Firstly, it further inspires those who are already stakeholders and secondly, it stirs in interest in others to become stakeholders.

One of the best examples of overcoming this fear is John F. Kennedy's speech at Rice University where he pledged to put a man on the Moon before the end of the decade. The community was already to some extent a stakeholder in that there was a desire to overcome communism. What was lacking, however, was a message that would inspire that community to achieve that goal. Kennedy sold them a vision and a way to fulfil and satisfy the desire. Once announced a collective national pride drove the programme forward.

What is fascinating to note is that no one ever updated the vision. So, once the US had placed a man on the Moon the pressure to cancel the programme became huge. Suddenly there were fewer stakeholders and the lack of inspiration meant the programme quickly evaporated.

## Conclusions

The difference between informing and inspiring is often small: the information is the same, but the presentation is different. Yet, as discussed, small differences can lead to substantial short and long term benefits.

For the International Year of Astronomy 2009, while creating and planning events it is necessary, to consider what the questions of the community are. It would be a disappointment, if at the end of the year the global community was aware of astronomy, but ultimately frustrated because questions were still awaiting answers.