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Space Safety Magazine®

INTERNATIONAL ASSOCIATION FOR THE ADVANCEMENT OF SPACE SAFETY

ISSF INTERNATIONAL SPACE SAFETY FOUNDATION

Space Safety Magazine Espressio Training Series

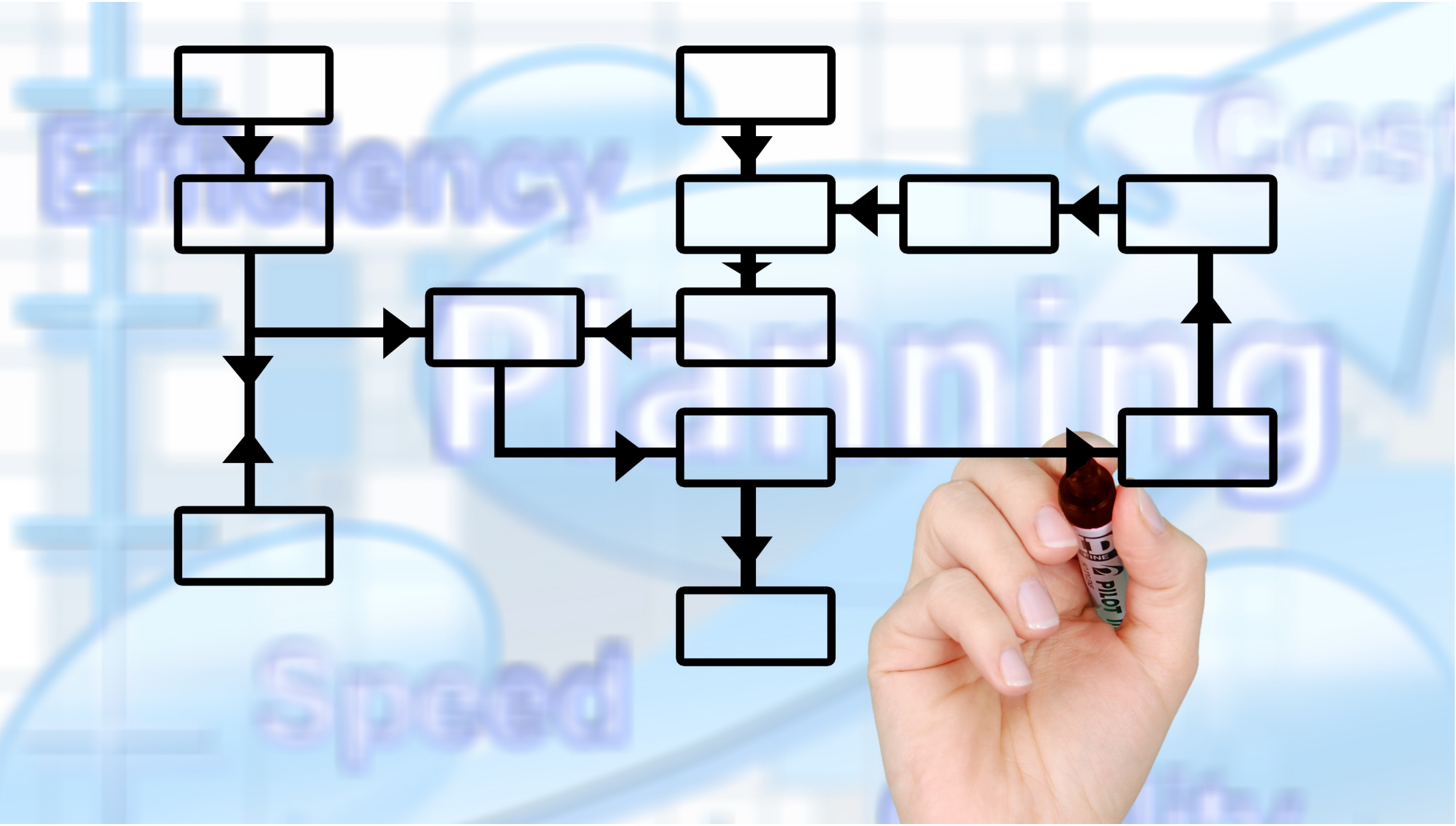
Lesson 3: The Editorial Process for SSM Online

The SSM Online

- The Space Safety Magazine Online is an informative and educational website targeting a wide audience of space and technology enthusiasts
- Its goal is to publish a relatively low volume of high-quality articles highlighting the "safety angle" in a variety of context in the space sector
- The ideal frequency of publication would be two or three articles a week
- To keep this volume, it is important to share the workload among different authors
- The Editor-in-Chief needs a tool to overlook the development of multiple articles
- Authors need a tool to effectively communicate with the Editor, and reduce the time required to complete an assignment

The Editorial Process

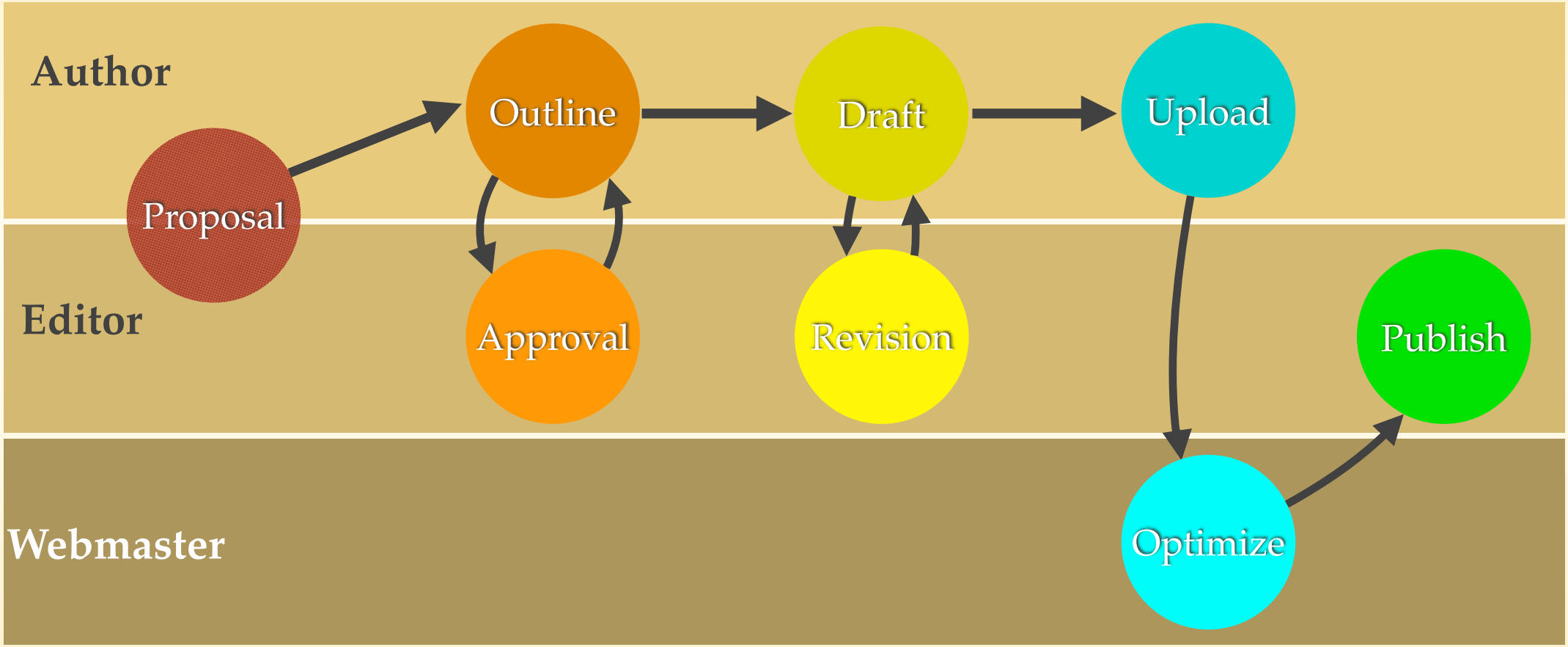
- The Editorial Process is a workflow that authors and editors agree to follow to create valuable content
- It helps to identify a topic, an angle, a structure, and a conclusion before starting to write
- It has Three Elements
  - **A Proposal**: The Initial Idea
  - **An Outline**: An early draft of the structure of the article
  - **A Deliverable**: A Word file with the article and specifications of links, captions, and youtube embeds; the author must also provide all the pictures in separate files
- For the author, the assignment ends after they have uploaded the article on the website, which means that they must not publish the article themselves
- The webmaster is responsible for the final touches
- <u>The Editor has the final word on the publication</u>


Efficiency
Cost
Planning
Speed
PILOT

Editorial Process

- Author and Editor-in-Chief agree on a Proposal
- The author then submits an outline
- The Editor reviews and comment the outline, then gives the go-ahead
- The Author drafts the article, and submit it to the Editor, along with the supporting material
- The Editor reviews and comment the draft; the review cycle may require one or two iterations, depending on several factors
- Once approved, the Author uploads the article on the website, and lay it out following the standard guidelines
- The Webmaster perform optimization and internal linking
- Finally, the Editor checks that everything is OK, and publish

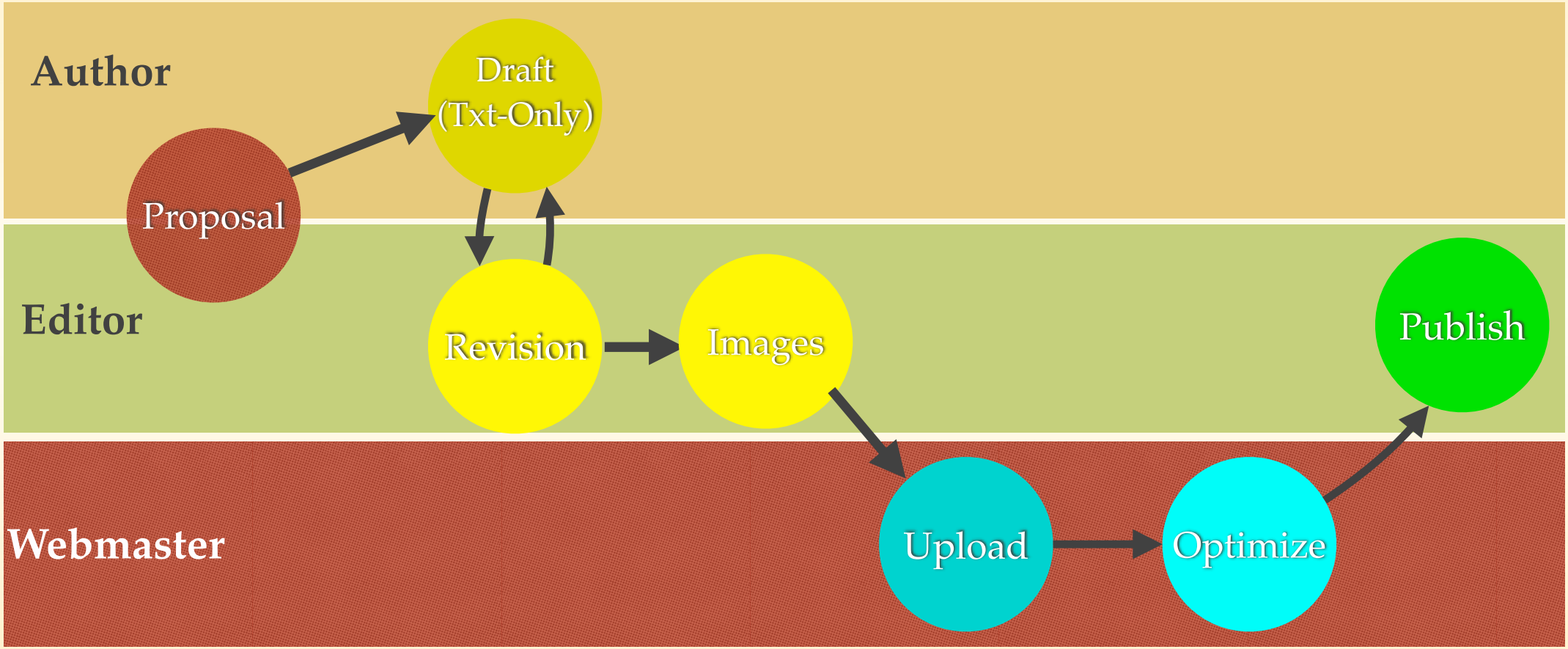
Workflow


Author
Editor
Webmaster
Proposal
Outline
Approval
Draft
Revision
Upload
Optimize
Publish

Editorial Process for Guest Authors

- Most Guest Authors follow a shorter Editorial Process because it would be unpractical to have them learn the entire process for just one or two articles
- After having agreed with the editor on a proposal, they directly submit a draft to the Editor-in-Chief, who performs the revision cycle
- The Editor then searches pictures and videos, and send instructions to the Webmaster
- The Webmaster uploads the article, and perform his usual optimization
- Finally, the Editor checks that everything is OK, and publish

Workflow for Guest Authors



Elements of the Editorial Process

The Proposal

- A Proposal is a quick, informal description of an idea for an article
- Defines the topic and the angle of the article
- It is often a two-line email
- Commissioned by the Editor-in-Chief, pitched by the Author, or discussed during a formal Editorial Meeting

Examples

- Commissioned by the Editor:
  - Dear John, can you please write an article on the Rosetta mission from the point of view of the frustrated wives of workaholic scientists?
  - Dear Sylvia, can you write a piece on 3D printing technology, highlighting the potential for dental prosthetic in long-term human spaceflight?
- Pitched by the Author
  - Dear Editor, I would like to write a profile of Sarah Brightman, highlighting her role of space pioneer in her upcoming space tourism flight

Outline

- The Outline is a communication tool between Author and Editor, and it is also a thinking tool for Authors
- It is a sort of contract that seals an agreement about focus, structure, meaning, and conclusions
  - The **Focus** denotes what the story is about (i.e. the Moon landing, the next-generation launchers, green propellant, and so on)
  - The **Structure** is about the logical structure of the article
  - The **Meaning** is about the importance of the article. Why should we care about this story? This is something that both the Author and the Editor should know before the article is written
  - The **Conclusions** are about what we learned while reading the article, and what are the possible follow-ups

Outline Format

- The Outline is written in colloquial language and bullet-points
- It is not intended to be a draft of the article, just a structured list of ideas to be developed
- Recommended structure:
  - **Main Title**
  - **Section Titles**
  - **Summary of Each Section**: 30-60 word paragraph, or bullet point list
  - **Conclusions**: Wraping up the discussion and announcing upcoming follow-ups

Outline Example

- **Title:** Hubble Telescope: 25 years of Space Astronomy
- **Introduction:** A short description of the telescope, its capabilities, and significant achievements.
- **A Blurry Beginning:** The initial failure of the project, what caused it and what it meant for NASA and science.
- **Rendezvous in orbit:** The servicing mission, its purpose, how it was carried out, description of improvements to telescope (optics, failed gyros, new instruments)
- **The Future of Space Telescopes:** Very short conclusion about plans for future space telescopes-JWST not designed for repair (orbit, cost)

The Deliverable

- The Deliverable is an article in Word format that expand on the Outline, following the Feedback
- The Intro goes right after the main title (doesn't needs its own title. Don't call it "Intro!")
- Each Section follows the corresponding section title
- Use Words Styles for the main title and section headers
- Note that there is no need for text formatting
- <u>Never embed pictures! Send them in separate files</u>
- The ideal word count for a web article is between 1000 and 2000
- Sections should be between 200 and 300 words

Example

Hubble Telescope: 25 Years of Space Astronomy

Peering into the farthest depths of the universe, the Hubble space telescope has redefined our understanding of the cosmos. It has enthralled millions and inspired a generation with its stunning images, such as the now-famous 'Pillars of creation' (M16 Eagle nebula) and 'Hubble deep field'. This year marks the 25th anniversary of its launch, sparking celebrations in the scientific and amateur astronomy communities. It is a remarkable turnaround from the unsupportive atmosphere that surrounded its catastrophic beginning.

A Blurry Beginning

The Hubble project, a huge undertaking that lasted more than a decade in development, was the embodiment of efforts dating back to the 1940s. Astronomers were excited at the prospect of studying the universe with the biggest space telescope available. But soon after launch, it became apparent that something was terribly wrong with the telescope. The first image taken by Hubble was not the clear, sharp picture that everyone expected. The technical team scrambled to find a cause, and soon discovered they had made a mistake.

The primary mirror in Hubble, its most important component, on which so much time had been spent to render it immaculate, was actually flawed. A misalignment of 1.3mm during manufacturing had created an optical aberration in the mirror, throwing it off from its perfect shape by a few microns. This minuscule misalignment caused the light to focus on different parts of the optical axis and thus produce fuzzy images.

Example (contd.)

Since there was no way to replace the 2.4-meter mirror in orbit, the telescope would operate far below its optimum resolution. The resulting media furor and political outcry threatened to sully NASA's name and derail other big budget space projects.

Coming right on the heels of the Challenger disaster, it was another huge setback for NASA. As the then director of NASA's Astrophysics program, Charles Pellerin, said in a 2012 interview, the political brass was angry and unwilling to fund any servicing missions for Hubble. It seemed that the future of this science program was in jeopardy.

Rendezvous in Orbit

Thankfully for NASA and the scientific world, Hubble had been designed to be serviced in orbit. On a servicing mission, astronauts could swap instruments with new ones with similar size and interfaces. If NASA could develop and install a corrective optics system to compensate for the mirror's aberrations, it would restore the telescope to its intended glory. Once the politicians were convinced, NASA developed a plan to save Hubble.

In 1993, after a year and a half of grueling training, seven astronauts took off on space shuttle Endeavour. The Shuttle was launched into an orbit 360 miles above the Earth where Hubble is located. As the shuttle closed in on the telescope, controllers on the ground shut down its instruments and prepared it to be captured. The robotic arm of the shuttle then grabbed on to Hubble's grapple point and gently lowered into a berth on the shuttle payload bay. The easy part of the mission was over.

Example (contd.)

The astronauts undertook a record five spacewalks and replaced the photometer with the new corrective optics system, installed the new Wide Field and Planetary Camera 2, a new computer co-processor, the Solar Array Drive Electronics unit and the Goddard High Resolution Spectrograph Redundancy Kit. On top of that, the crew performed routine maintenance tasks such as replacing electronic control units and fuse plugs.

One of the most complex human spaceflight missions ever came to a successful end almost 11 days after launch. Hubble was back on its feet, living up to its promise and relaying high quality data to the ground.

Over the next 16 years, four more successful servicing missions were launched. Each mission not only performed essential maintenance but also updated its science instruments, thus keeping Hubble relevant in the 21st century.

The Future of Space Telescopes

The enormous success of Hubble, both as a scientific instrument and a crowd-puller, has fostered the pursuit of observations from space. The future holds the promise of much more advanced space telescopes such as NASA's James Webb Space Telescope and ESA's PLATO (PLAnetary Transits and Oscillations of stars). But the story of Hubble will always hold a special place in everyone's heart.

The Supporting Material

- The Author Must Also Provide
  - 2-3 Pictures and Relative Captions
  - One or two links to related YouTube videos
  - Links to the main sources used in the article

Choosing Pictures

- When choosing pictures, you should make sure they are:
- **Meaningful**: Pictures should help "making the point" of the article, or as they say "A picture is worth 1000 words"
- **High Quality**: For online publication, 800x600 pixels is the minimum (1280x720 is ideal). For print, the minimum is 1980x1080 pixels (3000x2500 is ideal)
- **Engaging**: Pictures should be beautiful, spectacular and surprising
- **Public Domain**:
  - NASA and ESA pictures are always public domain; with Google, you can use the operator "site" to specify the website where you want to perform a search (i.e. "hubble telescope site:nasa.org")
  - Wikipedia editors are very careful about usage rights, so if you find a picture on a Wikipedia page it means it is public domain
  - Some pictures on Flickr are Creative Common; you can use appropriate filters and search tools
  - Websites like pixabay.com have a large collection of public domain pictures that can be used to represent "abstract" concepts (happiness, rage, teamwork and so on)

Picture Requirements

- **File Name**: Descriptive, lowercase, using hyphen "-" (not "_") to separate words
  - hubble-first-eva.jpg; nasa-administrator-chales-bolden.jpg
- **Captions**: Describe the role of the picture in the context of the article
  - "EVA tools like electric screwdrivers (pictured here) are astronauts' tools of the trade"
  - "John Doe evaluates the disaster site, taking note of location and dimension of the debris"
- **Credits**!!! It is important to give credits to whoever owns them. The convention is to add a trailing "- Credits:"
  - i.e. The Orion launch escape system. - Credits: Boeing.

Videos

- **Entertaining**: Find videos that are curious and surprising
- **Short**: Web readers have a short attention-span
- **Relevant**: OK with choosing a video presenting an unusual angle, but don't exaggerate!

Links

- Links are Part of the Article
- When Writing, take note of documents and pages that:
  - Are the main sources of your article
  - Substantiate "uncommon" claims or interesting and surprising facts
    - i.e. The Space Shuttle Challenger started its life as an Earth-bound test aiframe named OV-99 (link to: http://www.nasa.gov/centers/kennedy/shuttleoperations/orbiters/challenger-info.html)
  - Provide value to the reader
- Whenever possible, you should link other articles on the SSM Online
- Don't over-do: 3 to 5 good links are perfectly fine

- Anchor text should read as short standalone sentences hinting the content of the target
  - According to NASA Administrator Charles Bolden, the ISS Program has been extended until 2024.
  - "Close but no cigar," was Elon Musk's comment to SpaceX's January 11 attempt to land a reusable first stage on a barge
- Never, ever, for any reason, use words as "click this" as anchor text

Put Everything Together

- **Word File**
  - Title in “Heading 1”
  - Section Title in “Heading 2”
  - Body in “Normal”
  - Bullet Points and Numbered Lists when Needed
- **After the Article**
  - Suggested Captions
  - Link to Recommended Video and relative caption
  - Hyperlinks to your sources
- **Pictures as Separate Files**
  - Pictures are always processed separately, so embedding them inside Word documents makes things more complicated

Long-Term Planning

- While it is possible to publish an improvised sequence of unrelated articles, it is always better to think about the future
- Instead of requesting one-off articles, the Editor should plan articles series, and develop specialized thematic sections of the website
- To do so, the Editor-in-Chief should establish an Editorial Calendar to track the development of the various series, and ensure an homogeneous coverage of all the main topics
- The Editorial Calendar is basically an agenda with the planning for the upcoming trimester; the agenda can be shared with the team and discussed during editorial meetings

Specialized Thematic Section

- A specialized thematic section of the SSM Online is a group of 5-10 related articles covering a particular topic from various angles
- Articles are usually written by different authors in different formats
- The section is introduced by a comprehensive landing page that summarizes and links other articles in the section
- It is very powerful in creating authority in search engines
- These sections can be easily converted into special reports
- Conversely, special reports can be re-published on the SSM Website inside a specialized thematic section

Example

The Space Shuttle Columbia Disaster

- Landing page
  - Causes and Consequences of the Columbia Disaster
  - Lessons Learned from the Columbia Disaster
  - Living with Columbia: Interview with Mike Cianilli
  - Remembering the Columbia Crew, One Day at a Time
  - Impact of Columbia Disaster on US Aviation Safety
- Columbia Disaster Special Report (Published inside issue 6 of SSM)

Conclusions

- The Editorial Process helps both Editor and Authors to agree on:
  - Focus
  - Angle
  - Structure
  - Conclusions
- There are three working elements: the proposal, the outline, and the final deliverable
- There is a learning curve, but over time can be streamlined