Analysis of Journal Genres

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Abstract

The three types of journals analyzed with in this paper are academic, trade, and popular. Introduction, audience, ethos, pathos, and logos, data presentation, and conclusion are topics included in the analysis. The subject of jet engine efficiency is the common discussion in the articles.

 The intent of this paper is to analyze the similarities and differences of three journal types: popular, trade, and academic. The topic of jet engine efficiency will be used for this process. Each article has a different feel, and presentation style; the use of ethos, pathos, and logos differs as well. This analysis will start with how each journal introduces information, and will proceed to how data is presented, the use of sources, and conclusions derived from the bodies of each article.

 The key to communicating information is laying the groundwork. The introduction of a paper is that groundwork. The analysis will start with an article selected from the popular journal *The Economist,* titled “Powering Up – Jet engines: A nifty new design promises to improve combustion efficiency, thus cutting fuel consumption and reducing emissions”. This article is the only one reviewed to use pathos as a tool to hook the reader. It states, “In a world worried about global warming, improving the cleanliness and efficiency of jet engines is a priority for airlines and aircraft manufactures” (Powering Up, 2010, p.6). The topic of global warming and stewardship is hotly contested and reaches most people on an emotional level. The author, who is not listed, uses this emotion to engage the reader in the first sentence. An appeal to logic is used next in the introduction by stating that “Modern jets burn only half as much fuel per unit of thrust as their 1960's counterparts” (Powering Up, 2010, p.6). This gives readers a feeling of hope through the use of statistics and logic. The thought that things could be worse is used to calm the emotions fired up in the first sentence. The final sentence in the introduction uses ethos. The author states, “But some people think it is time for a radical redesign. One of those people is David Lior, the boss of a small Israeli firm called R-Jet Engineering” (Powering Up, 2010, p.6).

 The trade journal article “Betting on the Future”in *Aviation Week & Space Technology* written by Graham Warwick uses only logos in the introduction. The author comments on how one competitor has won more patents than the other changing the face of the competition (Warwick, 2013, p.18). The fact that companies are challenging each other with increased intensity is a good sign for the future of engine innovation. The use of industry jargon in the introduction clearly proves this to be a trade journal. The repeated inclusion of specific model numbers and acronyms also support this. Overall, the introduction in the trade journal is fact-filled and weeds out readers less interested in the specific changes to the engines powering the Airbus A320NEO jet liner.

 The academic article is taken from *The Journal of Air Transport Management* “The historical fuel efficiency characteristics of regional aircraftfrom technological, operational, and cost perspectives” (Babikian, Lukachko, &Waitz). An abstract was included along with a full page of introduction. Throughout the introduction, the authors cite many different sources and use statistics as the bulk of the content. Readers have a sense of what is going to be rigorously examined in the paper after reading the introduction because the authors state their deductions in the introduction. The findings mentioned in the introduction are proven throughout the paper. This article is unique because it explicitly states the intent to be a reference for regulators and lawmakers to use in decision making:

Future regulations and agreements aimed at reducing the environmental impact of aviation will need to consider the rising importance of regional aircraft to the US aviation system. To assist in such an evaluation, this paper quantifies and explains the historical energy efficiency of regional aircraft through an investigation of their technological and operational characteristics. (p.390)

This type of transparency gives perspective to facts and opinions in the rest of the article. Readers can reference back to this statement if the intent or relevance of a specific sentence is in question.

 The way empirical data is presented is another differing characteristic of the three journals. The popular journal starts out with a large graphic. The simplicity and ease of understanding presented by the picture suggests the author wants to reach a broad audience. It is not until later in the article that the true meaning of the graphic is discussed. The explanation is straight forward and uses the picture more as a visual aid than a chart or table. The amount of numerical data is minimal which makes for a nice easy read but does not support claims or arguments with much hard evidence. The author does quote Dr. David Loir, the boss of R-Jet, saying, “The engine would use at least 25% less fuel and, he claims, its emissions pf carbon dioxide and nitrogen oxide would be cut by three quarters because of its unique ignition properties” (Power Up, 2010, p.6). This is both an appeal to logos and ethos which helps the authors claim of an improved jet engine.

 “Betting on the Future”presents many more statistical facts throughout. This article also includes a comparison table at the end outlining nine different points of comparison between the two different engine technologies compared in the article. The author describes the changing landscape of competition as: “no longer apples to apples but architecture against architecture” (Warwick, 2013, p.18). The data presented during the rest of the paper is objective and does a commendable job comparing the two technologies. The strengths and weaknesses of both engines are presented using quotes from executives and statistical data provided by each competitor.

 The data presented in the academic article is very different from the other two articles. There are eighteen different graphs present in the body of the article. Each graph represents complex calculations that require a high level of education to understand what is being charted. The use of acronyms is consistent when presenting findings and making comparisons. An example of this type of jargon from the paper would be “The energy efficiencies of aircraft are measured by the specific energy usage (Eu) and specific energy intensity (E1), expressed in units of energy consumed per ASK (Joules/ASK) and energy consumed per revenue passenger kilometer (Joules/RPK), respectively” (Babikian et al., 2002, p.390). The majority of the information is presented in this way. This type of writing is not accessible to a broad readership. The information is organized in outline form with headings and subheadings which make for a clean, technical feel. The other unique characteristic is the inclusion of equations. There are many instances where the authors insert the exact equation used to derive the specific data they are discussing or that is presented in a graph. This practice gives the findings transparency so other researchers and experts can easily corroborate what is being stated. No equations are shown anywhere in the other types of articles.

 The way the genres use sources is also a topic I would like to compare. The trade journal used two main sources. These sources provided numerical data as well as direct quotes from multiple executives. The quotes were evenly distributed throughout the article giving space to both sides. The lack of sources from outside parties took credibility away from both companies represented. The paper had a feel of side “A” says this and side “B” says this, which could have been avoided with a few outside sources. The two sources were listed by name only at the end of the article. The popular journal quoted one executive that represented the engine technology being written about. This article, like the former, would have benefited from an outside source. The presence of a second opinion for, or against the technology would have given the article more grounds for its claim that R-Jet's technology is a break through. No formal listing of the source was present. The academic journal differed yet again. The presence of citations were so numerous it made reading a challenge. All of the sources were listed at the end of the paper—twenty six in total. This article also utilized footnotes to define generalized statements in the early parts of the paper. The quantity and variety of sources gave extensive credibility to this article. Government agencies and studies were cited as well as private sector findings which allowed an objective analysis and comments.

 These three examples of journals, one of each trade, popular, and academic, show the differences and similarities of the genres. They all are trying to get information out to the reader, but each is striving to reach a different reader in a different style. I personally enjoy reading the trade journal the most because I can rely on the accuracy of the information without getting bogged down in all the technical jargon. Information contained in the academic journal is at the fore-front of the field, if a reader can understand the information. Valuable knowledge can be taken from the discussions and experiments. Casual readers who are curious about a specific topic but do not have background knowledge would enjoy the popular as opposed to the academic.

References

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