

A re-interpretation of Shannon's information theory,  
and its relevance to information science

M. F. Lynch

---

Shannon's information theory, as it relates to noiseless communication systems, has been interpreted in a narrow sense since it was first formulated. A wider interpretation has recently emerged, which provides a formalism for description of many of the central concerns of information science.

The role of ranked distributions  
in information science

E. Wilkinson

---

Modern statistical theory is based on the concept of the *frequency* distribution. But in many information phenomena, the frequency distributions that arise are divergent and fail to meet the usual criteria for sampling theory.

On the other hand, *ranked* distributions are often more appropriate, and easier to manipulate. Their advantages will be exemplified.

Ranked distributions have two main roles:

- (a) as systems descriptors which high-light certain general system characteristics not otherwise observable.
- (b) as offering quantitative measures of other characteristics of practical significance.

These two roles will be illustrated but the need for further exploration of these roles in practical contexts will also be emphasised.