



ENGLISH ABSTRACTS

USE OF INTERNET TECHNOLOGY COMPARED TO VIEWING OF TELEVISION

Dror Fixler

The new millennium brought with it a new generation of technology. However, in addition to the benefits that this new technology affords us, there are also many dangers, and Internet technology is not free of them. The Internet is a worldwide, publicly accessible network of interconnected computer networks that transmit data by packet switching using the standard Internet Protocol. As of June 2007, 1,133 billion people use the Internet. What is the correct way to use this technology?

In this paper we compare the use of Internet technology with the culture of television viewing. The basic characteristics of both technologies are outlined and a recommendation for Internet use that will not compromise the basic principles of Jewish orthodoxy is proposed.

A LEARNING SYSTEM THAT DISAMBIGUATES ABBREVIATIONS IN JEWISH LAW DOCUMENTS

Yaakov HaCohen-Kerner, Ariel Kass, Ariel Peretz

In this research project, a model system is presented that sets out to solve the problem of abbreviation ambiguity in the Hebrew language. The research explores eighteen baseline solution methods: fifteen different context-related methods, two statistical methods as well as a specific Hebrew method. These methods are tested over a database of some two hundred and thirty Jewish Law documents, containing more than half a million words, including 42,687 ambiguous abbreviations. The performances of the above methods are deduced from a man-made solution database.

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Using a machine learning technique C4.5, the above methods are interlaced to 97 percent correctness. Future research directions and ideas are: creating interlaced methods from the baseline methods, usage of new successful machine learning techniques, implementation of baseline methods based on natural language processing, augmenting the databases with articles from additional contexts in the Hebrew language and in other languages, as well as developing algorithms for detection and correction of faulty or erroneous abbreviations.

COINCIDING DATES IN THE HEBREW AND THE GREGORIAN CALENDARS

Ariel Cohen

This article examines the methods of calculation that should be used to determine when the Hebrew and the Gregorian birth dates coincide in general, and in the same weekday, in particular.

The 19-year cycle in both calendars is examined in respect to the general belief that the birth dates in the calendars coincide after each such cycle. Since the lengths of the year corresponding to each calendar are determined by calculating the mean of the sum of all the days in the different years within one full cycle of the calendars (400 years in the Gregorian calendar), whereas the length of the tropical (astronomical) year includes a fraction of a day, this common belief is evaluated by examining the accuracy of the average calculated years in each calendar relative to the astronomical value.

A LOGICAL MODEL FOR THE STUDY OF THE *SUGYA* “THE FLUTE ON SHABBAT AND HOLIDAYS”

Avraham Lifshitz

This paper examines the structure of talmudic *sugyot* using tools and concepts taken from the field of Logic. The methodology proposed here is to test the logical foundation of the *sugya* before dealing with the process of give-and-take (*shaqla ve-tarya*), an approach that will enable an analysis of the process of the *sugya* in a clearer and deeper way.

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In order to achieve this goal, one should choose “foundational particles” – i.e. terminology, rules, sources, etc. that appear in the *sugya*, and assess the logical relationship between them, at first in an a priori fashion, and then for each and every part of its *shaqla ve-tarya*.

The *sugya* under discussion, “The Flute on Shabbat and Holidays” (*Succah* 50b-51a), contains two complex structures, which will be presented by using two basic tools of Logic: the formalism and the table model, each one suiting a different part of the *sugya*. In addition, a certain logical law (the law of De-Morgan) will be implemented in the course of the *sugya*. Needless to say, these structures might be found throughout the Talmud; thus their analysis will clarify not only the *sugya* under discussion, but also its structural parallels. It is the author’s belief that presenting a structure, which, due to the essence of its content, is hidden at times from the scholar’s eye, will result in a deepened understanding. At the same time, it will ease the task of the teacher, by separating the study of the *sugya*’s content from the study of its structure.

TOWARD AN IDENTIFICATION OF *SHIPON*

Zohar Amar

In halakhic literature there are “five varieties of grain” that have a special status, for example, in reciting blessings, setting aside a share for the priest from its dough (*halla*), fulfilling the obligation of eating matza, and defining *hametz* (unleavened bread). While only wheat and barley have been clearly defined, the other three *kusemet*, *shibboleth shual*, and *shipon* are subject to various traditions of identification.

This article is an attempt to chart a course for re-evaluating the identification of the five varieties of grain, using *shipon* as a test case. Based on an analysis of the Jewish-Arabic commentary, it appears that there are two major contenders for identification as *shipon*: oats (*Avena sativa*) and rye (*Secale cereale*). It is possible that during the period of the rabbinical sages, these types of grain were raised in limited, cold regions in the north of Israel or that their seeds were imported from Europe. The exegesis in which *shibboleth shual* is *avena* (included in the five varieties of grains in any case) reinforces the probability that *shipon* is *Secale cereale*. If so, this is consistent with an ancient and widespread tradition of identification that was accepted in both East and West.

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THE PRIESTLY BLESSING (*BIRKAT KOHANIM*)
THE HIERARCHY OF NEEDS OF THE JEWISH PEOPLE

Arye Arzi

This paper examines the world of Torah in relation to behavioral sciences theories, and examines the attitude toward human needs, as reflected in *Birkat Kohanim* on the one hand, and in A. Maslow's *Hierarchy of Needs* and Alderfer's E.R.G model on the other. Since the source of *Birkat Kohanim* is divine, the blessing should be regarded as an expression of God's attitude to human needs, and to the proper sequence in which these needs should be fulfilled. The paper maintains that a strong similarity exists between the divine attitude to human needs and the proper hierarchy of their fulfillment as expressed in *Birkat Kohanim*, and the models proposed by Maslow and Alderfer.

The first blessing of *Birkat Kohanim* is solely concerned with material needs and is parallel to the physiological and safety needs in Maslow. The middle blessing deals entirely with spiritual needs – belonging, love and social esteem – and is parallel to the middle stages in Maslow. The first part of the third blessing expresses intimacy with God, and the conclusion of *Birkat Kohanim* focuses on *Shalom*, as the most superior value, paralleling the need for self-realization, which marks the top of both Maslow's and Alderfer's pyramids of needs. According to Maslow, self-realization is an individual need that can be defined by the individual's unique characteristics. Similarly, *Birkat Kohanim* reveals that self-realization of the Jewish people – as a society and as individuals – can be attained by closeness to God and by developing an intimate relationship with Him.