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THE SOURCE CODE OF CREATION-- TECHNOLOGY AND JEWISH LIFE[1] [2]

by
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Many consider technology the main characteristic of our time, calling it "the age of technology". Its domination of society will accelerate further in multiple fields such as information, communications, genetics and biotechnology. Long ago, philosophers already understood that by investigating technology in its totality, one obtains insights beyond those gained from assessing individual disciplines. Even superficial analysis shows that the same is true for looking at Jewish life from an overall perspective of technological development.

Sociological aspects

Technology has had a significant impact on the social organisation of Jewish life. In the mid-1970s, the political scientist Daniel Elazar pointed out that the invention of the jet plane and the telephone have had "as much influence on the patterns of American Jewish life as any more widely hailed social factors... The automobile more than any other single factor ended the neighborhood life of American Jewry, by making sub-urbanization possible."[3] Later, he also commented that Jews can now take a multi-centered approach to life, e.g., by living abroad and visiting Israel a number of times a year.[4] Another example is that family members from all over the world are now able to participate in the celebration of a bar-mitzvah or wedding, or come to console mourners.

One group for whom the multi-centered approach has become typical is the chassidic courts. As the sociologist Menachem Friedman writes: "In the

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[3] Daniel J. Elazar, Community and Polity: The organizational dynamics of American Jewry. Philadelphia: Jewish Publication Society of America, 1976, pp. 96-7.

[4] Daniel J. Elazar in: Manfred Gerstenfeld, Israel's New Future: Interviews. Jerusalem: Rubin Mass/Jerusalem Center for Public Affairs, 1994, p. 105.

past, emigration overseas led to an almost total cut-off between the chassid and his rabbi. Modern electronic means of communications make it possible for chassidim, dispersed in big cities in the West, to be in continuous touch with their centre, to ask advice and be answered immediately... The development of air traffic has enabled chassidim to come for the holidays and to feel that they belong."[5]

There are many more diverse examples of technology's social impact. Domestic appliances have played an important role in getting women out of the home; for Jewish women, this has greatly enlarged the possibilities of participating in Jewish studies. Confronting European governments effectively in the Holocaust assets issue by a trans-Atlantic Jewish political alliance has only become possible thanks to modern methods of communication such as fax and the Internet.

Socio-halakhic aspects

Sub-urbanisation resulting from advancements in technology also has a socio-halakhic impact: when moving away from the city centre, the orthodox Jew still needs to choose his residence within walking distance of a synagogue.

Other socio-halakhic facets concern kashrut. In the past, a rabbi had to decide whether a chicken was kosher or *treif*, according to the circumstances. Today, due to the technological change leading to mass production, storage, distribution and mass marketing, the question is whether the kashrut stamp on the package is good enough in the eyes of the specific consumer. In ultra-orthodox communities, not wanting to rely on the *hekhsher* of another community is a conscious expression of belonging rather than of being halakhically strict about kashrut. This religious discourse has thus acquired a political dimension.

Technological means are also changing the field of Jewish learning. *Yeshivot* which have introduced computers may have a significant advantage over those that have not. Rabbinical authorities are usually characterised either as *Sinai*, a person with a strong knowledge base, or *oker harim*, "the uprooter of mountains", a scholar with great creativity. Technology has shifted the equilibrium toward the latter: he too now has easy access, through the use of electronic databases, to the knowledge that the *Sinai* type of scholar has.

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[5] Menachem Friedman, The Haredi (Ultra-Orthodox) Society: Sources, trends and processes. Jerusalem: The Jerusalem Institute for Israel Studies, 1991, p. 149. [Hebrew]

There are other developments as well. Some rabbis, such as R. Ovadia Josef, are drawing international audiences via satellite broadcasting. The same is being done by the Lubavitch movement. Individuals can take many newsletters on the Torah portion of the week from the Internet. Experts report that those wishing to convert to Judaism now often come with much more knowledge than in the past as the new media have made information so much more accessible.

Halakhic aspects

Technological developments are creating better observance on the one hand, and on the other, lead to more severe application of halakha. The interaction between technology and halakha is so vast, however, that it is difficult to cover. One aspect is the application of modern analytical methods in the field of kashrut. There are areas where the halakhic consensus has decided consciously not to use the best technology. The slaughterer's knife could now be checked by new electronic tools. However, halakha favors eye inspection and the sensitivity of the thumbnail in investigating the kashrut of knives. Similarly, there is no need to check with a microscope whether there are insects in the salad that the eye cannot see.

Additional halakhic issues involving new technologies concern life-prolonging devices; new methods for identifying causes of death; the granting of divorce in a video-conference; the marking and identification of Torah scrolls. Others include the determination of parenthood through DNA, and what happens with time-dependent commandments if one crosses the international date line[6]. Scholars dealing with hypothetical space travel are asking how often one should say prayers if the sun goes up every few hours.

Some experts believe that it will be possible in the future to make significant changes in the activities which are permissible on Shabbat, by applying various sensors. Such technological changes would alter the atmosphere of Shabbat. It is possible that the rabbis would then decide to make keeping the present Shabbat atmosphere halakhically binding.

Many technologies have alleviated the life of the observant Jew. Methods of heating food have significantly changed the Shabbat menu: cholent has

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[6] See for instance: R. Shraga Faital Halevi Levin, *Heker haHalakha b'Idan haTekhnologia haHadisha*. *Tehumim* 1986, p. 479.

lost its monopoly in Jewish communities originating from Eastern Europe. Dishes can now be heated with the help of electric plates and automatic timers.

Problems for the traveller

On the other hand, new technology is creating a large number of new problems for the observant Jewish traveler abroad. Crossing streets on Shabbat has become problematic: frequently one has to push a button in order to make the traffic lights change. To cross or not to cross, that is the question: to cross at the civil authorities' red light or, God forbid, at the halakhic red light?

Due to electronic eyes, it is also increasingly problematic for the observant Jew to enter a hotel on Shabbat. Reaching one's room becomes difficult when there are elevators but no stairs. Sometimes, the light on a floor is automatically turned on by a sensor. Increasingly, one can only enter one's room with electronic cards. Sometimes one cannot leave the light on in one's room because the key has to rest on a specific sensor. Lighting Shabbat candles may activate a fire-extinguishing system, causing an unwanted shower.

The observant Jew and the philosopher

The halakhic attitude can contribute to society's insights in technology, as it indirectly addresses major questions posed by contemporary philosophers. Normative Jewish behavior expresses a specific approach to the relationship between man and machine. This is obvious, for instance, in the difference between the use of technology during the week and its application on Shabbat, which limits, *inter alia*, leisure, transport and communications.

By cutting himself off – at fixed times – from subordination to the technological world, the Jew gains a different perspective on the world to the non-Jew: he is capable of looking at technology from the inside – as a user – and from the outside – as an observer. This specifically Jewish perspective enables him to sense and understand better the limits of technology and its influence on man.

What can be an exciting question for the philosopher of technology is trivial for any observant Jew: whether technology is becoming autonomous and man its instrument. The Jew knows that distancing

oneself from technology is not only possible but also enlarges one's horizons, despite its seeming to narrow them.

The enriching experience on Shabbat partly derives from this controlled use of technology. This is a contemporary rephrasing of Ahad Ha'am's statement: "More than that the Jews have preserved the Shabbat, the Shabbat has preserved them." Thanks to Shabbat, the Jew cannot become fully addicted to television or the Internet.

This Jewish attitude to technology also has a potential meaning for the external world. One example of this was when, during the oil crises over the past decades, traveling by private car was forbidden in various cities on specific days. Nowadays this is more common due to air pollution. In this way, many non-Jews are also exposed to what one might call a very limited 'Shabbat-like experience'. Many people have said that their lives have been enhanced by their not using the automobile one day a week.

Technology in the space of holiness

The specific Jewish attitude toward technology on Shabbat is one example of a larger phenomenon. In Judaism, concern for holiness creates a space of actions which is not directly subordinated to technological developments, but uses these according to its needs. Another example of this is that Torah scrolls and *mezuzot* must be written by hand by expert scribes in order to be suitable for religious purposes. Neither can Jews recycle books which include God's name: these must be buried.

Yet another example of limited use of technology in the sphere of holiness is the Torah commandment that the Temple not be built with iron tools: "And if you make for Me an altar of stones, do not build it of hewn stones; for by wielding your tool [sword] upon them you have profaned them."[7]

This has a further meaning: optimal use of destructive technology is restricted. This is the case not only in the sphere of holiness, but also on other occasions. The Torah prohibits wanton destruction, which has both environmental and technological aspects. It specifically mentions that one is not allowed to destroy fruit trees when one besieges a city[8].

[7] Exodus 20:22.
[8] Deuteronomy 20:19.

Narrative and midrash

As often happens in the Torah, the same ideas indicated in the Biblical halakha come to the fore in the narrative. The paradigm of the wrong use of technology in the pre-technological world of the Torah, expressing a prohibition against using optimal technology for any purpose, is the story of the Tower of Babel. It condemns man's striving for achievements – via technology – which God does not consider desirable.

The double face of technology is often stressed today: it can be put to both constructive and destructive use. The Jewish tradition saw this many centuries ago, as two Midrash texts on the first chapters of Genesis demonstrate. Rashi writes that Tuval-Cain improved the skills of Cain in order to make tools for professional murderers. Cain had only been an amateur, who had invented his weapon on the spur of the moment.[9]

Another Midrash tells us that Noah invented agricultural technology. Among the tools attributed to his creativity is the plough. Before Noah, people worked the earth with their bare hands. He thus alleviated their labouring the earth.[10]

Judaism neither admires technology, nor sees it as dangerous *per se*. Jews are much more aware than many others, however, that science cannot be pure and technology cannot be neutral. A people which has undergone the Shoah understands it to be a paradigm of the continued and systematic use of science and technology for destructive purposes.

There are many other aspects of the interaction between Judaism and technology. Jews have played an important role in the development of science and technology. The many Jewish Nobel Prize winners are the best proof of this. The question though remains whether organized Judaism has some additional scientific potential which goes beyond what Einstein and other individual scholars could achieve by themselves.

To conclude on a positive note: one thing that technology has enabled us to do is to live longer. Thus the average Jew can fulfill the commandment to honor his father and mother for many more years than in the past.

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[9] Rashi on Genesis 4:22 and Bereshit *Raba* 23:3.
[10] Midrash *Tanhuma* 23:3.

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