On discretely generated box products

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A. Dow, M.G. Tkachenko, V.V Tkachuk y R. Wilson introduced the notion of a discretely generated space in 2002. A space X is *discretely generated* if for every $A \subseteq X$ and $x \in \overline{A}$, there exists a discrete set $D \subseteq A$ such that $x \in \overline{D}$. This theory has had a considerable development since its inception, but it is still young, there are many open questions simple to formulate. For example, if X is a discretely generated space, is X^2 discretely generated? We do not know.

In this talk, we give a brief introduction of the theory and most important results. We will mention an important theorem that relates box products spaces and the property of being discretely generated.

Finally, we give the answer of the following question: Does the space $\{\xi\} \cup \omega$ embed into a box product of real lines, for any ultrafilter $\xi \in \beta\omega \setminus \omega$? Moreover, is the Tychonoff product $(\{\xi\} \cup \omega)^\omega$ discretely generated?