



## Patenting Human Gesture Recognition

The EPO has previously considered the patentability of human gesture recognition. Two previous decisions of an EPO Technical Board of Appeal have recognised that recognition of human gestures, e.g. as a method of computer input, is technical. The Board overturned refusal of two European patent applications relating to the recognition of specific sequences of human gestures using a computer touch pad. In these refusals, the Examining Division had asserted that human gestures are inherently non-technical as a matter of policy and cannot therefore contribute to inventive step.

The Board of Appeal decisions in both cases concurred with our submissions that the nature of the gestures to be recognised can be relevant to inventive step and that it would not in fact have been obvious to reconfigure any of the prior art touch devices to recognise the specific gestures defined in the claims.

In the first of the two cases, EP 02025488.4, the invention addressed the problem of providing a convenient implementation of a “drag” operation using a touch pad input device. The claimed solution involved configuring the touch pad to recognise a single tap gesture by a conductive object (such as a finger) that initiates the drag operation, and a subsequent movement gesture of the conductive object which defines the dragging operation (a “singletap and drag” gesture).

In the second case, EP 05013803.1, the invention addressed the problem of adapting a touch pad to emulate the mouse features of providing cursor movement signals and push button functionality. The claimed solution involved providing a single touch pad area which can generate cursor movement signals and can further provide signals corresponding to a plurality of mouse buttons in response to tap gestures on pre-defined regions of the touch pad area.

### First Instance

In both cases the Examining Division (with the same composition) considered that the closest prior art disclosed touch pads that are able to recognise and differentiate between gestures mapped to different commands. Based on this analysis the Examining Division considered that the inventions at issue were distinguished over the prior art only by the nature of the human gestures themselves, which, the Examining Division argued, “by their own nature ... cannot form the subject matter of patent protection”. The Examining Division refused the applications on the ground of lack of inventive step.

The Examining Division supported their conclusion by explaining that in the context of human-machine interaction processes it is common practice within the EPO not to concede technical character to problems related to the implementation of subjective preferences of the human (for instance the problem of selecting certain human gestures among a vast universe of alternatives

and/or mapping them to specific commands), even where the choice of human gesture might lead to an increase in the overall efficiency, ergonomics, user friendliness or usability of the system.

Subject matter in a claim that is deemed not to have the necessary technical character is disregarded by the EPO when assessing inventive step.

There is no explicit basis in the European Patent Convention (EPC) for the alleged “common practice” of the EPO referred to by the Examining Division, nor, more specifically, for uniformly disregarding features of a claim that define the nature of a human gesture or sequence of gestures when assessing inventive step.

### T1896/09 and T1900/09

We filed appeals, T1896/09 and T1900/09, against each of the decisions of the Examining Division. The written decisions of the Board of Appeal issued in August 2013.

The approach of the Board of Appeal was fundamentally different to the Examining Division. In each case, the Board explicitly stated that it did not concur with the line of argumentation advanced by the Examining Division and did not make any reference to alleged “common practices” of the EPO in respect of human-machine interaction processes or general principles in relation to the technical or non-technical nature of human gestures.

Instead, the Board searched for (and found) better prior art and applied the problem-solution approach to assess inventive step, taking into account all elements of the claims.

In the case of EP 0205488.4, involving the single-tap and drag gesture, new prior art was found that disclosed a double-tap and drag gesture. Other new prior art disclosed use of single depression of a mechanical switch (not a “tap”) in combination with a drag gesture. No combination of the prior art could be found which would have led the skilled person to the single-tap and drag gesture.

In the case of EP 05013803.1, concerning touch pad emulation of mouse cursor movement control and push button operations, new prior art was found which disclosed a touch pad having a plurality of pre-defined areas, including a two dimensional cursor control area (which is able to detect movement and “taps”) and a plurality of discrete button areas which act as two position switches (but which cannot detect cursor movement). It was held that it might have been obvious to modify the button areas to detect taps instead of using mechanical switches, but that it would not have been obvious to modify the button areas to detect cursor movement also.

Both cases were held to satisfy the requirements of inventive step and were allowed to proceed to grant.

## Further Comments

Regarding human gestures themselves, further decisions such as T 0543/14 have followed the above approach, holding that features relating to a user's gestural interactions with an electronic device, and the reaction of that device, have technical character. Equally, as was stated in T 2630/17, gesture input on a touch screen is considered to be a technical process, since it involves tracking the user's finger position to identify a gesture and comparing that gesture with a reference gesture. T 1958/13 held that a "single-drag gesture" designed to improve the user experience or provide a more user-convenient text editing function to not contribute to inventive step. Since the goals of each user would be different, the effect of providing a more user-convenient text editing function would only be achieved for some users. The board

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therefore regarded that the definition of such gestures would have been considered during the user interface design, and did not consider the above effects as technical effects for formulating the problem to be solved.

Assessment of whether a claim feature is "technical" can be difficult in borderline cases, particularly where the subject matter does not relate to one of the explicitly mentioned exclusions (e.g. business methods). Common practices have developed at the EPO which assist examiners in many situations. However, in the absence of any definition of "technical" in the EPC, such practices do not constitute definitive rules and applicants should be wary where Examining Divisions seek to rely too heavily on them. As the present cases demonstrate, successful challenge is possible.