Datasheet for the decision
of 21 December 2017

Case Number: T 2238/12 - 3.4.03
Application Number: 02726257.5
Publication Number: 1415292
IPC: G09B5/14
Language of the proceedings: EN

Title of invention:
ACTIVITY CONTROL SYSTEM FOR NETWORKED COMPUTER-AIDED LEARNING

Applicant:
SANAKO CORPORATION

Headword:

Relevant legal provisions:
EPC 1973 Art. 56

Keyword:
Inventive step - (yes)

Decisions cited:
Catchword:
Case Number: T 2238/12 - 3.4.03

DECISION of Technical Board of Appeal 3.4.03 of 21 December 2017

Appellant: SANAKO CORPORATION
(Applicant)
Kaurakatu 46
20740 Turku (FI)

Representative: Kolster Oy Ab
(Salmisaarenaukio 1)
P.O. Box 204
00181 Helsinki (FI)

Decision under appeal: Decision of the Examining Division of the European Patent Office posted on 18 May 2012 refusing European patent application No. 02726257.5 pursuant to Article 97(2) EPC.

Composition of the Board:
Chairman G. Eliasson
Members: M. Papastefanou
C. Schmidt
Summary of Facts and Submissions

I. The appeal is against the decision of the Examining Division refusing European patent application No. 02 726 257.2 (published as WO 02/099770 A1) on the grounds that the subject matter of claim 1 of both the Main and the Auxiliary request before it did not involve any inventive step within the meaning of Article 56 EPC.

II. The Appellant (Applicant) requested that the decision of the Examining Division be set aside and that a patent be granted on the basis of the Main request or of the Auxiliary request, both filed with the statement of grounds of appeal. Both requests formed the basis of the appealed decision.

III. The following document, cited during the first instance proceedings is relevant for this decision:

D3: EP 1 049 066 A2

IV. According to the Board's preliminary opinion, which was issued in a communication according to Article 15(1) Rules of Procedure of the Boards of Appeal (RPBA) and was annexed to the summons to oral proceedings, the Main request on file appeared to be obvious for the skilled person in view of D3. Regarding the Auxiliary request, the Board raised the question whether it involved an inventive step in view of D3 and indicated that the issue would be discussed during the oral proceedings.

V. As a reaction to the Board's communication, the Appellant withdrew its Main request and resubmitted its Auxiliary request as Main request. A new Auxiliary
request was also filed with the same letter, which consisted of the same claims as the newly submitted Main request but with reference signs added to the features of the claims. Amended pages of the description adapted to the new claims were also filed. In addition, the Appellant announced that it would not attend the oral proceedings.

VI. The Appellant requested that the decision under appeal be set aside and that a patent be granted according to the following requests:

**Main request**

Claims 1-14 (without reference signs) filed with letter dated 17 November 2017;

Description pages 1-13 filed with letter dated 17 November 2017;

Drawing sheets 1/3-3/3 as published.

**Auxiliary request**

Claims 1-14 (with reference signs) filed with letter dated 17 November 2017;

Description pages 1-13 filed with letter dated 17 November 2017;

Drawing sheets 1/3-3/3 as published.

VII. Oral proceedings took place as scheduled in the absence of the Appellant. At the end of the oral proceedings,
the chairman announced the decision of the Board.

VIII. **Claim 1** of the Main and Auxiliary requests is worded as follows (reference signs only in the Auxiliary request):

A networked computer system for networked computer-aided learning, the networked computer system comprising a tutor workstation (1) with a tutor application (11), at least one student workstation (2, 3) with a web browser, and a network (8) interconnecting the tutor workstation (1) and the at least one student workstation (2, 3), characterized in that

the tutor workstation (1) comprises a user interface for remote-controlling the operation of the at least one student workstation (2, 3) by sending control commands over the network (8),

the tutor workstation (1) is arranged to remote-control the browsing functionality of the web browser of the at least one student workstation (2, 3) by said control commands sent over the network to the at least one student station (2, 3),

wherein said tutor workstation (1) is arranged to send to the at least one student workstation (2, 3) a navigation policy definition including a set of rules which limits the capacity in which a browsing capability of a web browser in the at least student workstation (2, 3) is available, and

wherein the at least one student workstation (2, 3) is arranged to receive the navigation policy definition and to configure the browser in the at least one student workstation (2, 3) according to the navigation policy definition such that part of the browsing capability of the web browser is disabled and made unavailable.
Independent Claim 8 of the Main and Auxiliary requests is worded as follows (reference signs only in the Auxiliary request):

A method for remote-controlling a computer workstation in a networked computer-aided learning system, the networked learning system comprising a tutor workstation (1), at least one student workstation (2, 3), and a network (8) interconnecting the tutor workstation (1) and the at least one student workstation (2, 3) having a browser and an Internet access, characterised by displaying at the tutor workstation (1) a user interface having control functions by which a tutor is able to remote-control the operation the at least one student workstation over the network, remote controlling by the tutor workstation (1), a browsing capability of a web browser in the at least one student station (2, 3) by sending over the network (8) to the at least one student station (2, 3) commands according to the control functions selected by the tutor, sending from the tutor workstation (1) to the at least one student work-station (2, 3) a navigation policy definition including a set of rules which limits the capacity in which a browsing capability of a web browser in the at least student workstation (2, 3) is available to the student, and the at least one student workstation (2, 3) configuring the browser according to the navigation policy definition such that part of the browsing capability of the web browser is disabled and made unavailable to the student.

Independent Claim 13 of the Main and Auxiliary requests
is worded as follows:

A computer program product comprising program code means stored on a computer readable medium for performing the method of any one of claims 8 to 12 when the program is run on a computer.

Independent Claim 14 of the Main and Auxiliary requests is worded as follows:

A computer program comprising code means for performing each step of any one of claims 8 to 12 when the program is run on a computer.

Reasons for the Decision

1. The invention

The invention relates to computer-aided teaching systems. A networked computer system comprises a tutor workstation and student workstations interconnected through a network. Teaching/educational material is downloaded/transmitted to the student workstations, where students can use it under the remote supervision of a tutor, using the tutor workstation. The tutor workstation, using a tutor software application, can control remotely the student workstations and, among others, can control and limit (partially disable) the web browsing capability of the student workstations.

2. Closest prior art

2.1 The Examining Division considered a common place client-server system to be representing the closest prior art. The Board does not share this opinion.
It is generally known that in a client-server computer system two or more computers are connected to each other over a network and a first computer-server, which contains resources and data, receives and executes commands and/or requests from the other computer(s)-client(s), which normally do not contain the necessary resources and/or data to execute such commands and/or requests themselves.

The networked computer system of claim 1 of the Main request does not operate in the same way. Although it comprises also two or more computers (workstations) connected to each other over a network, the operational relationship among them is different as one computer (tutor workstation) is able to control actively the operation of the other computer(s) (student workstation(s)). Hence, the technical operation of such a system is not the same as that of a client-server computer system.

The Board is, hence, of the opinion that the differences between the networked computer system of claim 1 and such a common place client-server system are not limited to those features which the Examining Division regarded as being non-technical and, therefore, such a client-server system would not be a suitable starting point for the skilled person.

2.2 Document D3, which was cited in the International Search Report, is regarded by the Board as more suitable as closest prior art for the present application because the system it describes was conceived for the same purpose as the claimed invention (networked computer-aided teaching/learning) and has the most relevant technical features in common.
D3 discloses a networked computer system (Figure 1) for networked computer-aided learning comprising a teacher (tutor) workstation and student workstations interconnected through a network (paragraph [0015]). Both teacher and student workstations comprise respective specialised software applications (components — paragraph [0021]).

During a teaching session, educational material is displayed on the screen of the teacher workstation and it is transmitted in real-time (streamed) to the screens of the student workstations (paragraphs [0007], [0030] and [0031]).

The teacher workstation and the student workstations can communicate with each other through bidirectional communication channels, so that the students can ask questions and give feedback to the teacher but also among themselves (paragraphs [0007], [0024]).

The teacher workstation can also control remotely, using commands, the student workstations (paragraphs [0032] and [0033]). Using the teacher software component, the teacher workstation can take control of the student workstation and restrict the student's access to it during the streaming of the educational material (paragraphs [0008], [0019], [0021]). Access restriction can be implemented in several ways, for example controlling what is displayed on the student workstation's screen, what data are transferred from and to the student workstation or forcing certain application(s) to be executed at the workstation (paragraphs [0022]–[0025]) or even taking total control of the student workstation by the teacher (paragraph [0025], [0028]).
3. Differences and technical problem

3.1 The features of claim 1 that distinguish it from D3 are, hence, that D3 does not explicitly disclose that the student workstation contains a web browser and that the teacher workstation is able to control remotely the browser functionality of the student workstation's web browser by send a navigation policy definition including a set of rules which limits the capacity of the web browser of the student workstation and by the student work station being arranged to receive such a navigation policy and configure its web browser accordingly.

3.2 In the appealed decision, the Examining Division considered this feature to be void of explicit technical considerations and merely defining an administrative rule to be enforced.

The Board does not share this opinion of the Examining Division. Even if there is mention of a navigation policy which includes a set of rules, this feature cannot be regarded as a merely administrative rule in the context of the present application. As defined in the claim, this set of rules causes the student workstation to configure its web browser resulting in partially disabling its browser capabilities. This feature provides, thus, a technical effect by affecting the capability of the web browser's functionality, which is a technical operation. Therefore, this feature cannot be seen as a merely administrative rule which can be treated as a non-technical feature in the patentability assessment of the claimed subject matter.

3.3 As it is explained in the application, the tutor generates this navigation policy in his/her
workstation, using the tutor application, and sends it to the student working stations and/or stores it on a server or a shared folder where the students have access (page 10, lines 16-34). When the web browser at the student workstation is opened, the client (student) application checks the web browser settings set by the tutor application (i.e., the navigation policy) and configures the web browser accordingly (page 11, lines 12-14). When the client application receives changed settings sent from the tutor application while the web browser is running, it controls the web browser or changes its configuration according to the received settings (page 11, lines 14-17).

The result is that the web browser activity of the browser at the student workstation is limited (partially disabled) for the whole time the student workstation is connected to the tutor workstation (teaching session), irrespectively of whether any streaming/transmission of teaching/educational material to the student working station takes place.

3.4 In D3, it is explained that the teacher workstation takes control of the student workstation during the streaming of educational material from the teacher workstation to the student workstation(s) and releases the student workstations once the streaming is completed (see for example paragraphs [0027], [0028] and [0036]). After the streaming is completed, the teacher can monitor the student workstations and, if necessary, can take remote control of a workstation to assist or correct the work of a student (lines 18-34 in paragraph [0036]). In general, however, all the limitations of the functionality of the student workstation(s) are removed once the streaming of the teaching material is completed (see for e.g. lines
12-16 in paragraph [0036]).

3.5 The technical effect of these distinguishing features can, therefore, be identified as allowing the tutor (workstation) to control remotely the access (browsing activity) of the student workstation to the (world wide) web in order to improve the concentration of the students and their participation at the teaching session.

3.6 The skilled person starting from D3 is, thus, faced with the technical problem of how to modify the system of D3 in order to achieve this technical effect.

4. Solution - Obviousness

4.1 Although in D3 there is no specific mention of a web browser included at the student workstations or of any web browsing activity in general, the Board is of the opinion that a web browser is a standard application in any computer system and was so on the priority date of the application. It would thus be obvious - if not implicit - that the student workstations have a web browser installed.

4.2 In D3 it is explained repeatedly that the aim of the teacher's taking control of student workstations and restricting access to them is to prevent students from disrupting the course and ensure that they focus on the educational material being streamed from the tutor workstation (see for example Abstract, and paragraphs [0005] and [0021]). It is also explained that the teacher can take total control of the student workstation and force the student to focus on the educational material that is displayed on the screen (paragraph 0025]). This implies that the student should
be prevented from interacting with his/her workstation in any way that would disrupt his/her focus on the educational material. In the context of this remote control of the student workstation by the teacher (workstation) it would be, thus, an obvious conclusion that part of restricting the interaction of the student with his/her workstation would also be preventing browsing the web.

From these explanations, it would be obvious that the control of the browser activity of the student's workstation web browser is part of the teacher workstation's (total) remote control of the student workstation.

4.3 However, as explained above (see points 3.2 and 3.3), any restrictions the teacher workstation imposes to the student workstations in the system of D3 are applied only during the streaming of educational material from the teacher workstation to the student workstation(s) and once this streaming is completed these restrictions are lifted and the student workstation(s) become(s) fully operational. Hence, any limitations to the web browsing activity at the student workstation are applied only during the streaming of the teaching material and not during the whole teaching session as in the claimed invention.

As it is also stated in D3, all the inputs at the student workstations are locked by the teacher workstation during the streaming of the educational material so that the students cannot disturb the lesson (column 8, lines 5-15). This would imply that no web browser activity at all would be possible during this period, since the students are not able to input anything in their workstation, like a URL for example.
4.4 The skilled person starting with D3 and trying to implement a limitation to the web browser activity of the student workstation(s), would not do it using a navigation policy in the way it is used in the claimed system.

Even it were to be considered that a complete disabling of the web browsing activity would be also a navigation policy, in claim 1 there is only partial and not complete disabling of the web browser activity. In addition, any limitation of the web browsing activity in D3 would be part of a complete locking of the inputs of the student workstation and only temporary and dependent on the streaming of the educational material. As it is also stated in D3 (lines 5-10 of column 8) the locking of the student workstation input devices is done using a command sent by the teacher workstation. The skilled person would, thus, not contemplate the generation of a navigation policy according to claim 1 in an obvious manner and without exercising any inventive skill.

4.5 The conclusion of the Board is, therefore, that the subject matter of claim 1 of the Main request involves an inventive step within the meaning of Article 56 EPC 1973. The same applies to independent claims 8, 13 and 14, which define the corresponding method, computer program product and computer program respectively.

5. The claims of the Main request, however, do not meet the requirements of Rule 29(7) EPC 1973 because they do not include reference signs in the features of the claims.
6. The claims of the Auxiliary request, which have identical wording to those of the Main request, include reference signs and fulfill the requirements of Rule 29(7) EPC 1973.

7. The description has been adapted to the claims and document D3 is also cited therein.

8. In conclusion, the Board is satisfied that the application meets the requirements of the EPC and EPC 1973.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of the first instance with the order to grant a patent in the following version:

   Claims 1-14 (with reference signs) filed with letter dated 17 November 2017;

   Description pages 1-13 filed with letter dated 17 November 2017;

   Drawing sheets 1/3-3/3 as published.

The Registrar:          The Chairman:

S. Sánchez Chiquero    G. Eliasson

Decision electronically authenticated