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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:

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 2238/12 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 21 December 2017

Appellant: SANAKO CORPORATION
                          Kaurakatu 46
(Applicant)   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