



## Question Q213

**National Group:** **United States**

**Title:** **The person skilled in the art in the context of the inventive step requirement in patent law**

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### Questions

The suggested questions will try to analyze and to understand the definition of the “person skilled in the art” in three steps: the notion of the “person”, the issue of his or her personal “skills” and finally the “technical field” in which these skills are exercised.

#### Question 1)

The study proposed by AIPPI starts with the consideration of the person as one of the elements of the definition of the person skilled in the art.

The Groups are therefore requested to indicate if the person skilled in the art is one, or more, person.

If a skilled person is a team of people, then are the team members all the same or may they be different in their various attributes, specifically if such a team may comprise persons from various disciplines or having different levels of qualifications?

#### Response 1)

Throughout most case law and the Manual of Patent Examination Procedure (MPEP) standards, the “person having ordinary skill in the art” (aka “PHOSITA”) is referred to in the singular (“a person”, “the person”, “one skilled in”) when discussing obviousness, and in the singular AND plural (“those of ordinary skill”, “persons of ordinary skill”) when discussing enablement and written description issues. As discussed in response to Question (3), this distinction of referring to a plurality of skilled persons for enablement and written description issues likely emphasizes the difference in standard of the “person(s) skilled in the art,” and is not likely meant to insinuate that a group or team

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of persons represents the “person” of ordinary skill. The person of skill in the art has also come into play in evaluating anticipation, particularly for consideration of inherency. See *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043 (Fed. Cir. 1995) (“The disclosure need not be express, but may anticipate by inherency where it would be appreciated by one of ordinary skill in the art.”); and *Hellifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 1347 (Fed. Cir. 2000) (prior art may anticipate a limitation, even if not expressly disclosed, if a person of ordinary skill in the art could understand that the prior art inherently discloses the limitation and combine that prior art description with his own knowledge to make the claimed invention). However, there is a dichotomy of views on the necessity of evaluating a person of ordinary skill in the art with reference to inherency. See *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 51 USPQ2d 1943 (Fed. Cir. 1999) (“Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art.”).

Even though the “person” is most often referred to in the singular, the courts have not yet ruled explicitly on the question of whether the person of ordinary skill in the art may be a team. The concept of the ordinarily skilled person as a team or group has been argued and utilized in some cases without being negated. See *Afros S.p.A. v. Krauss-Maffei Corp.*, 671 F. Supp. 1402aff’d, 848 F.2d 1244 (Fed. Cir. 1988) (unpublished) and *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found., LP*, 422 F.3d 1378, 1383 (Fed. Cir. 2005).

### Question 2)

Is the skilled person a real person (or team of persons) or a hypothetical person?

### Response 2)

The skilled person is a hypothetical person. See MPEP § 2141.03(I); *General Battery Corp. v. Gould, Inc.*, 545 F.Supp. 731 (D.Del.1982); *Novelart Mfg. Co. v. Carlin Container Corp.*, 363 F.Supp. 58 (D.N.J.1973); *American Standard Inc. v. Pfizer Inc.*, 722 F.Supp. 86 (D.Del.1989); *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448 (C.A.Fed.1985); *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955 (C.A.Fed. (Ill.)1986); and *Environmental Designs, Ltd. v. Union Oil Co. of California*, 713 F.2d 693 (C.A.Fed.1983).

### Question 3)

The person skilled in the art has to be analyzed in the frame of her/his personal capacities and attributes.

At first, it is necessary to know whether and if so to which extent this person has reasoning and/or creative capacities or if he/she has merely the capacity to perform or execute the orders or instructions from other people.

Another point that can be discussed is whether the personal attributes of the person skilled in the art are the same also for other circumstances in which the person skilled in the art may have a role, such as construction of the patent or for the consideration of the sufficiency of the disclosure in the specification, even if this last point goes beyond the scope of the present study.

Finally, the question that can be discussed is the issue of knowing if the personal attributes of the person skilled in the art are the same for different IP rights covering technical creations, like patents or utility models, species, etc., if they exist in the national law.

### Response 3)

The hypothetical person of “ordinary” skill in the art may have creative abilities and reasoning capacity beyond mere execution of instructions. See *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (U.S. 2007) (“a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ...a person of ordinary skill in the art is also a person of ordinary creativity, not an automaton”). However, the degree of this creative capacity is not well settled.

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As previously mentioned, the standards and attributes applied to the person of ordinary skill in the art differ in the differing roles of the person: the person in relation to obviousness is required to have a higher skill level than the person construing the application and its disclosure. This is because the point of patenting is to disclose the invention to the public in a manner in which they can understand and reproduce it utilizing only the disclosure of the application itself. See *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361 (C.A.Fed. (N.Y.) 1997) (“It is the specification, not the knowledge of one skilled in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement.”).

Just as the “person” may have different attributes based on differing substantive analyses of a patent application, the “person” may also have differing attributes based on the varying subjective technology-specific creations. The factors considered in determining the level of “ordinary” skill in the art (i.e., the *Environmental Designs* factors) form the basis for these different treatments of technology-specific creations. See *Environmental Designs, Ltd. v. Union Oil Co. of California*, 713 F.2d 693 (Fed. Cir. 1983). The factors that may be considered in determining level of ordinary skill in the art include: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.”

In design patent cases, the person of ordinary skill in the art is a designer of ordinary capability. *In re Carlson*, 983 F.2d 132 (Fed. Cir 1993). The United States does not have utility model patents.

### Question 4)

Another important aspect of the question is to know what are the personal skills of the “person skilled in the art”?

At least, two important issues deserve to be analyzed:

- What is the level of the qualification or skills of the person?
- And what are the nature and the scope of his/her knowledge?

The second issue encompasses more precisely the question of the capacity to understand and to analyze the documents which are accessible to the person skilled in the art, this capacity being called “the general knowledge” and concerns the proof of the content of the “general knowledge”:

- a) what is the scope of such knowledge in general terms?
- b) is such knowledge limited to the general technical training of such person?
- c) to what extent is information in documents – articles or prior patents - considered to be included as part of such working knowledge?
- d) can such knowledge include information which the person may not have memorized, but can readily look up?

### Response 4)

First Issue:

The qualifications or skills of the person of ordinary skill in the art may be ascertained by evaluating the *Environmental Designs* factors as discussed above in response (3).

With regard to the nature and scope of the person’s knowledge, the person of ordinary skill in the art is presumed to have knowledge of all prior art references sufficiently related to one another and to the pertinent technical fields. *In re Sernaker*, 702 F.2d 989 (Fed. Cir 1983). The person of

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ordinary skill in the art is also presumed to have knowledge of all arts related to the problem with which the inventor was involved. See, e.g., *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955 (Fed. Cir. 1986).

Second issue:

a) In general terms, as stated above, the scope of the person's general knowledge includes knowledge of all prior art references related to the pertinent technical fields and all arts related to the problem with which the inventor was involved.

b) General knowledge of the person is not limited to the general technical training of the person. The "hypothetical 'person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art." *Ex parte Hiyamizu*, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988). This knowledge is not defined by way of educational credentials, but may be defined by evidence of the technical knowledge and work experience such a person may acquire in the workplace. *Id.*

c) Information in prior art documents may be considered part of the general knowledge of a person of ordinary skill in the art. If the only facts of record pertaining to the level of skill in the art are found within the prior art of record, U.S. courts have held that an invention may be deemed obvious without a specific finding of a particular level of skill where the prior art itself reflects an appropriate level. *Chore-Time Equipment, Inc. v. Cumberland Corp.*, 713 F.2d 774, 218 USPQ 673 (Fed. Cir. 1983). See also *Okajima v. Bourdeau*, 261 F.3d 1350, 1355, 59 USPQ2d 1795, 1797 (Fed. Cir. 2001). References which do not qualify as prior art because they postdate the claimed invention may be relied upon to show the level of ordinary skill in the art at or around the time the invention was made. *Ex parte Erlich*, 22 USPQ 1463 (Bd. Pat. App. & Inter. 1992).

d) Because the person of ordinary skill in the art is presumed to have knowledge of all prior art, the person's general knowledge need not have been memorized. Moreover, documents not available as prior art because the documents were not widely disseminated may be used to demonstrate the level of ordinary skill in the art. For example, the document may be relevant to establishing "a motivation to combine which is implicit in the knowledge of one of ordinary skill in the art." *National Steel Car Ltd. v. Canadian Pacific Railway Ltd.*, 357 F.3d 1319, 1338, 69 USPQ2d 1641, 1656 (Fed. Cir. 2004). On the other hand, the document may include knowledge that might lead away from a claimed invention. *In re Dow Chem. Co.*, 837 F.2d 469 (Fed. Cir. 1988).

### Question 5)

The question of the person skilled in the art raises also the problem of the moment of the evaluation of those skills: should they be all evaluated at the moment of the appreciation of the validity of the patent, i.e. at the moment of the priority date, or could they be evaluated also at the date when the patent is assessed by the Judge, for example in the infringement proceedings, where the validity can be debated jointly with the infringement claim? This may conduct to the differences of appreciation in case the notion of the equivalence is used in relation to the prior art.

### Response 5)

Obviousness must be evaluated from the point of view of a person of ordinary skill in the art *at the time the invention was made*. This is a statutory requirement under 35 U.S.C. § 103. Therefore, any development by others occurring before the time the invention was made may be considered in determining the level of skill in the art and obviousness. See *Stewart-Warner Corp. v. City of Pontiac*, 767 F.2d 1563, 226 USPQ 676, 680 (Fed. Cir. 1985). Developments after the time the invention was made should not be considered in determining the level of skill in the art and obviousness. *Id.*

For the purposes of initial patent examination, the "time the invention was made" is considered to be the earliest effective filing date of the application. See *Bates v. Coe*, 98 U.S. (8 Otto) 31, 34 (1878). This is otherwise referred to as the date of "constructive reduction to practice". In the case of a continuation application, the earliest effective filing date of the application can be the

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corresponding parent U.S. application. Alternatively, the applicant may claim priority based on a foreign application.

A patent applicant or patentee may antedate the earliest filing date by proving that the invention was made earlier. In the context of an interference, 35 U.S.C § 102(g) requires consideration of not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other. While antedating a reference may remove it as prior art, such reference may still be relied upon to show the level of ordinary skill in the art at or around the time the invention was made. *Ex parte Erlich*, 22 USPQ 1463 (Bd. Pat. App. & Inter. 1992).

### Question 6)

The next issue related to the definition to the person skilled in the art is the technical domain or "the art" in which his or her skills are performed.

- (a) The first sub-question is to know if those skills are concentrated in one or several technical fields.
- (b) And the second one is related to the way the frontiers between different technical fields can be established: how this determination is assessed by the Judges or Patent Offices?

### Response 6)

(a) In the United States, the "person having ordinary skill in the art" relates to "a 'hypothetical person' who is presumed to be aware of all pertinent prior art. The actual inventor's skill is not determinative." *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955 (Fed. Cir. 1986). Evidence may be introduced in an attempt to help define the hypothetical person having ordinary skill in the art, from experts or otherwise. The factors pertinent to determining the level of ordinary skill are the *Environmental Designs* factors discussed in response (3) above.

The skills attributed to the hypothetical person will be determined by the nature and characterization of the invention. In complex fields involving multiple technical areas, a person of ordinary skill may be required to be experienced in multiple diverse technical areas. For example, a person of ordinary skill for an invention directed to a salt-impregnated plastisol fishing lure would be required to be experienced with fishing, fishing lures, and the technology of plastics. *Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953 (Fed. Cir. 1997). Accordingly, depending on the invention itself, the skills of the hypothetical person could be concentrated in one or several technical fields.

(b) Evidence may be introduced in an attempt to help define the hypothetical person having ordinary skill in the art, from experts or otherwise. Judges or U.S. Patent Examiners will typically look at the *Environmental Designs* factors discussed in response (3) above to determine the level of ordinary skill. "A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). "[I]n many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* Examiners and Judges may also take into account "the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.*

Ultimately, the Judge or Examiner will first identify the nature of the invention and will next decide what technical field or fields the hypothetical person must be experienced in to be considered to have an ordinary level of skill sufficient to understand and practice the invention. Though the technical field of the person skilled in the art may be limited, a U.S. Patent Examiner may consider prior art references "in a field different from that of applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his or her invention as a whole." MPEP 2141.01(a).

Question 7)

The question is also to know what is the nature of his/her competence in the technical field and particularly if this competence theoretical or practical?

Response 7)

Since the “person having ordinary skill in the art” in the United States relates to “a hypothetical person who is presumed to be aware of all pertinent prior art,” the competence in the relevant technical field must necessarily be theoretical rather than practical. See *Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc.*, 807 F.2d 955 (Fed. Cir. 1986). The actual skills of the inventor are not determinative; rather, the relevant inquiry is what theoretical knowledge the hypothetical person of ordinary skill would have. *Id.*

Question 8)

The Groups are requested to indicate how in practice the assessment of the skills of the person skilled in the art is operated. What is the role of the opinion of the experts on this point?

Response 8)

In the United States, the assessment of the skills of the person skilled in the art is determined by a patent examiner, an administrative law judge, a district or appellate court judge, or a jury, depending on the venue where the issue arises. Although the patent laws require consideration of “a person having ordinary skill in the art,” 35 U.S.C. § 103(a), and “person skilled in the art,” 35 U.S.C. § 112, for example, the practical reality is that the level of skill is almost never determinative of whether a patent is valid or infringed. Consistent with this understanding, each party in contested proceedings will typically argue that its position is correct regardless of the level of ordinary skill in the art that is ultimately selected by the decision maker, and likewise, the decision maker will rarely if ever indicate that the level of ordinary skill in the art was dispositive of an issue.

In determining the level of ordinary skill, the decision maker can consider any number of relevant factors. Typically, such factors include the *Environmental Designs* factors discussed in response (3) above. All factors relating to the level of ordinary skill are assessed from the time the invention was made.

With regard to the role of the opinion of experts, expert evidence concerning the level of skill in the art in the United States tends to be treated differently depending on the level of the forum in which it is being evaluated. As discussed above, the determination of the level of skill in the art is rarely a dispositive issue at any of these levels. Nevertheless, in combination with other issues present in the case, acceptance of one party’s argument for a determination of a low or high level of skill in the art, may make a difference in the outcome. Thus, the opinion of experts is sometimes relied upon.

The lowest level forum is *ex parte* prosecution at the USPTO. This includes initial prosecution, reissues and *ex parte* reexamination. At this level, expert witnesses can provide their opinion in the form of a written declaration to be submitted to the Examiner. The Examiner must evaluate the declaration and give it “due weight.” However, because such evidence typically represents only the opinion of one expert, it tends not to be given much weight in the final determination of obviousness.

The next level forum would be an *inter partes* reexamination at the USPTO. In such a proceeding, both the owner of the patent undergoing reexamination and the party requesting reexamination are permitted to present evidence. In such a circumstance, expert declarations submitted by both sides would often counterbalance each other, resulting in no overall effect. However, if one party’s expert declaration is far more persuasive than the other, it would tend to be given a greater weight than the same declaration submitted during *ex parte* prosecution because the other party would have had a chance to rebut it.

An interference is another *inter partes* proceeding conducted at the USPTO. As in *inter partes* reexamination, each party is permitted to submit expert declarations. However, in addition, further discovery is permitted, and the experts are typically subjected to a deposition, the transcript for which is submitted into evidence. Given the higher level of development of the evidence, if one party can present a far more persuasive case than the other, the expert opinion may be given quite a bit of weight.

At the level of a court or the International Trade Commission, expert testimony can be provided in many forms, including declarations, deposition testimony, and testimony at trial. This evidence can be evaluated at multiple stages during the proceedings, including preliminary injunction, summary judgment, by the finder-of-fact after trial, and in post-trial motions. At least in principle, summary judgment is the stage at which expert declarations concerning the level of skill in the art might have the greatest effect. At the summary judgment stage, the evidence being evaluated is typically similar to that considered in an interference, i.e., expert declarations and depositions. At this stage, a determination is made whether there are any genuine issues of material fact for the case to proceed to trial. Thus, at summary judgment, the party opposing summary judgment need only show that there is substantial evidence of a dispute concerning material facts. It is possible that such a dispute might be shown concerning the level of skill in the art. However, a party attempting to show substantial evidence of a dispute over this issue will encounter many barriers. For example, in order to be successful with such a strategy, any difference between the two party's assertions concerning the level of skill in the art must be shown to be material, i.e., to affect the outcome. Moreover, to have any effect, "[a]n expert opinion submitted in the context of a summary judgment motion must . . . set forth facts and, in doing so, outline a line of reasoning arising from a logical foundation." *Brainard. v. Am. Skandia Life Assur. Corp.*, 432 F.3d 655, 663-64 (6<sup>th</sup> Cir. 2005). Finally, the party moving for summary judgment might very well have no dispute concerning the level of skill in the art.

#### Question 9)

Finally, the Groups are also invited to present all other questions which may appear in the context of the question of the person skilled in the art.

#### Response 9)

There are no other questions that the U.S. group chooses to raise.

#### **5) Future harmonization:**

After assessing the national solutions, the Groups are invited to present their proposals for the possible harmonization and specifically the harmonized definition of the person skilled in the art. The object of this section is not to repeat all the questions related to the current statute of the national law, but to find the most fundamental points on which the international harmonization could be sought.

- 1) Specifically, the Groups are invited to precise on which points they see the particular need of the international harmonization on the issue of the person skilled in the art.
- 2) The Groups may indicate if the "person skilled in the art" standard should be assessed as a hypothetical model or on the contrary appreciated *in concreto*?
- 3) Should the skills of the "person skilled in the art" be only to execute other person orders or should they be creative and both practical and theoretical?
- 4) Should the art in which the skilled person intervene be of only one discipline, or should it cover several technical fields?

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- 5) The Groups are also invited to present all other suggestions which may appear in the context of the possible international harmonization of the definition of the person skilled in the art.

### Proposal for Future Harmonization:

In countries where a problem-solution approach to inventive step is considered, the person of ordinary skill in the art seems to be limited to knowledge in the technical field within which the problem is being considered. In contrast, in the United States, the person of ordinary skill in art may be assumed to have knowledge in a wider ranging technical field covering all aspects of the complete invention, and be able to apply that knowledge with some modicum of creativity. Accordingly, there appears to be a need to harmonize the level of skill in the art and its applicability within the different frameworks for determining obviousness or lack of inventive step.

### **SUMMARY:**

A person “skilled in the art” is a hypothetical person having an “ordinary” level of skill in the relevant technical fields. The level of skill is determined from factors including: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field. The level of skill is determined as of the time the invention was made, which, during initial patent examination, is considered to be the earliest effective filing date of the application. The hypothetical person is presumed to have knowledge of all prior art references related to the pertinent technical fields and all arts related to the problem solved by the inventor. This hypothetical person may have creativity and reasoning capacity beyond mere execution of instructions.

**Note:** It will be helpful and appreciated if the Groups follow the order of the questions in their Reports and use the questions and numbers for each answer.

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