

## American Medical Informatics Association Nursing Informatics History project

### Purpose

The overall purpose of the Nursing Informatics History Project is to document and preserve the history of nursing informatics.

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**Dr. Patricia Schwirian**

- Interviewer: Dr. Schwirian, could you please tell us your name, education, and title?
- Patricia Schwirian: Be glad to. I'm Pat Schwirian. I'm a Professor Emeritus of Nursing and Family Medicine at The Ohio State University in Columbus.
- Interviewer: Can you tell us a little bit about your educational background?
- Patricia Schwirian: My education started in Illinois at the Illinois State University where I thought I was going to be a science teacher for the rest of my life. Things changed. My life changed a lot. For instance, I got married, and we went to The University of Iowa. My husband—Sociology, and I worked on my degrees in Science Education there. Then we went to The Ohio State University, and have been there ever since. I got my Ph.D. there, and I went on later to get my bachelor's degree in Nursing at Capital University in Columbus. So, I was a latecomer to the field of nursing.
- Interviewer: How would you describe nursing informatics?
- Patricia Schwirian: Well, I would describe a very broad definition of nursing informatics. I consider it the knowledge base that supports and furthers the application of computers in nursing practice, in nursing education, in nursing administration, and in nursing research.
- Patricia Schwirian: I consider nursing informatics to be the knowledge base that supports and furthers the application of computers in nursing practice, in nursing education, in nursing administration, and in nursing research.
- Interviewer: Dr. Schwirian, briefly describe your career in nursing that led up to your involvement in nursing informatics.
- Patricia Schwirian: Actually, my career in nursing became much earlier than my career in, than my career in nursing per se. I came through science education, and my research was in education and the social behavioral aspects of it. So my view of computers was as a tool for data analysis—that I could be an independent researcher and run my own data analysis. You may or may not know that at The University of Iowa they've always had a very strong computer analysis history because of the testing and information services that came out of The University of Iowa, so we had access to computer systems—large systems—that other people didn't, for many, many years. In fact, the computer that we both—my husband and I both—used for our dissertation research—or his dissertation, my thesis—was an IBM counter-sorter that the testing service had no use for anymore. And it was located

on a landing of a stairway in the Sociology Department. And all you had to do to run it was to program it by wiring a little eight-by-eight board, sticking it in the side of it, and turning on the button, and giving it a kick to get it started. So, we never were really terribly intimidated by computers ever. Then, when we got into our further careers, the idea of moving into nursing informatics just made an awful lot of sense, because I'd always used computers—the mainframes mostly. And then when microcomputers came along, that was a godsend.

Interviewer: How were you first involved in nursing informatics? And this might be a time to talk about the conferences at Ohio State.

Patricia Schwirian: The conference came.... My involvement with nursing informatics probably started, well, definitely started in the early 80's—1981 as a matter of fact—when Gary Hales at The University of Texas - Austin put out his little blue newsletter. Now, I don't know how I got on his mailing list, but I did, and I thought, "This guy really has some very unique and weird ideas. I love it." Because I'd never been much of a rule-follower myself, so I like those unique people. And when Gary put out a call for people to serve as editors for a journal that he wanted to develop, and that he thought he had the support for from Lippincott, I sent him my C.V. And he liked it, and invited me to be a participant in the *Computers in Nursing* first initial group, which was my initial introduction and the beginning of it all.

Interviewer: And you had a story about Gary Hales at Lippincott, and the dinner?

Patricia Schwirian: We had our first meeting in November for, to form what became *Computers in Nursing*. We didn't know what the title was going to be at that time. I think we decided it at that meeting. And it was in Philadelphia in November, and the weather was as miserable as it can get in Philadelphia in November. And two of the group that were in there—one was Gary Hales, the other was Sue Grobe—they were both from The University of Texas - Austin. They had no winter clothes. They had no idea how the weather was going to be. And they about froze. Anyway, we had our meeting. That was in November. It took several months for the basic work to get done on it. And the first *Computers in Nursing*, as you know, rolled out in '82 in the Spring. And I believe it was a National League for Nursing meeting that was held in New Orleans that we had a luncheon—Lippincott hosted a luncheon—at which we made a presentation and introduced *Computers in Nursing*. And the night before we had our luncheon, J. Lippincott, who was the youngest of the Lippincott boys took, hosted the whole group of us to a five-star restaurant in New Orleans—probably doesn't exist anymore. Now, this group also included my two kids—my youngest son, Tom, who was then, I think he must have been ten, and my daughter, who was 16, who J. Lippincott thought was the cutest thing in the whole world. And, of course, how many ten-year old boys have a tie? They don't. And this was a tie-and-jacket restaurant. Well, Gary Hales talked the maitre d' out of the jacket for my son, Tom, but he had to have a tie. So Gary went into the gift shop and bought

Tom a tie. I don't know if Tom.... Tom saves things. He probably has the tie to this day.

Interviewer: Did you have an "aha" moment when you realized the value of informatics?

Patricia Schwirian: No, it never was any question. Did I have an "aha" moment about the value of informatics to nursing? Not really, because I'd always known how functional computer applications were. It let you do your work independently. It gave you a lot of power. It gave you a lot of speed. There was no question that it would be useful in nursing. It had been in everything else I'd ever done.

Interviewer: Dr. Schwirian, when did you first consider yourself an informatics nurse?

Patricia Schwirian: Well, you know, an informatics nurse—that's a good question, and an interesting one, because I never thought of it that way until I was on a committee—an ANA committee—with Harriet Werley. She was the first chair, and I was fortunate enough to be asked to serve with her on that committee. And at that time we were again worrying about what our title was—the title of that particular ANA group. And we wanted it to be the "Nursing Informatics Application Group." Harriet did not like the term "nursing informatics." Now, I can't remember why. But at that time, I thought, "It's a good term, and that's what I am."

Interviewer: Let's talk about your personal aspirations and accomplishments. What overall vision guided your work?

Patricia Schwirian: My vision, and what guided my work, was sort of evangelical, I guess. I was a really strong believer in what the power of computer applications could do in nursing practice, particularly in clinical practice, because I didn't have a lot of experience as a clinical nurse—just a couple of years—because I didn't get my degree in that until the end of 1980. But I saw that there were just so many opportunities for monitoring, for data collection, for keeping track of this, that, and the other thing, that nurses were struggling with paper and pencil, pencil and paper, carrying little notes around in their pockets, and I'm thinking, "We need to do this better, and computers could really help us a lot." And, of course, I knew in education that it was so—that was just a stretch from my commitment to science education into nursing education, the use of computers, so it was just a natural.

Interviewer: Who were some of the people that you collaborated with to accomplish your vision or your goals? Do you have any good experiences you can relate to us?

Patricia Schwirian: I was able to collaborate with some of the really exciting people in the early years of nursing informatics. As I said, Gary Hales, who, of course, invited me on the board of the *Computers in Nursing*. I was invited by Harriet Werley, who, of course, was an extraordinary, extraordinary woman, visionary, leadership beyond belief, and a tough taskmaster. You did not mess with Harriet. But she really

accomplished so many, many things. I also valued so much the input from my colleagues at *Computers in Nursing*. Donna Larsen, who really had the visions of what kids were going to be doing with computers in education back in the early 80's. Donna was saying, "Well, of course every student's going to be bringing a computer to school." And my husband and I thought, "Yeah." Well, here they are. Now, it's a little like 25 years later. She was just ahead of her time. Many of us were ahead of our time is what I've discovered now. Susan Grobe had some excellent visions of nursing informatics, nursing information systems. She was absolutely brilliant. I was fortunate enough to be on some review committees that funded her work from the National—not National Science Foundation—it was "Nursing" then, yeah, from the federal government. So, these people have all been very exciting people to work with for me.

Interviewer: Do you care to tell us the story about how *Computers in Nursing* was named? Wasn't that the story you were telling us earlier?

Patricia Schwirian: Oh, yeah, yeah, yeah. The way this.... One of my favorite stories about *Computers in Nursing* has to do with that meeting at the Lippincott meetings in November of 1981. They were held in the Lippincott Building on Washington Square, which was very old. Nobody would even take the elevator—it was just too spooky. And we struggled out many issues at that time, because we were starting from nothing. We had Gary's little blue letter to work from. And so we just said, "OK, how was the content going to be divided up? What was going to be the name?" Etc., etc. So we struggled with this probably one full day. And by about the mid-day, or shortly, late morning of the second day, you could see sort of a steely look come into Virginia Saba's eye, and she was saying, "OK, this is a journal about nursing, about computers in nursing, and the decisions about this journal should be made by nurses." Well, Gary wasn't a nurse. So, Virginia claimed a bathroom break, which, of course, meant Gary couldn't come into the Women's bathroom. So it was in the women's bathroom at Lippincott that the decision was made how the journal was going to be titled and how the topics of it were going to be carved up; that there was going to be administration, and who was going to be the editor for that; that there was going to be research and who was going to be editor for that—I got that assignment; there would be education, and who was going to be the editor for that. And we came out of that, and that's what Virginia announced, and that's what happened.

Interviewer: That is a great story. OK. Including your personal achievements, what do you see as the significant events that have shaped the field of nursing informatics?

Patricia Schwirian: I think the things that have shaped the field of nursing informatics has been the involvement of both the ANA and of the federal government in recognizing the importance of it, and, in terms of the federal government, in terms of funding projects such as Sue Grobe's and others, and then, in terms of ANA, in terms of promulgating it and providing a united front, and that's extremely important. You

really couldn't go anywhere nationally without the ANA, so their support has been just extremely vital.

Interviewer: Switching to the discussion of research, what were the important questions addressed by research related to nursing informatics?

Patricia Schwirian: The important issues related to nursing informatics. In the early days, and this is what I can relate to the most, it had to do primarily with issues about....

Interviewer: OK, Dr. Schwirian, I'm going to ask you about research related to nursing informatics, but specifically I'd like to ask you about the model you developed for research.

Patricia Schwirian: I would be glad to talk about the model that I developed, and Gary was the one that labeled it "Schwirian's Cube." That was back when Rubik's Cube was a big to do, you know. And so, Gary, always willing to jump in there and do strange things, called it "Schwirian's Cube." Now, where did Schwirian's Cube come from? Well, it came from my trip, my plane trip back from Washington, where I'd attended my first SCAMSI meeting, and I had not met any of these computer application medical people at all before. And I was sitting, having a drink, and the discussions that were going on around me were using language and terminology and foreign words and everything. I felt, at that time.... Remember the *Star Wars* movie? Remember the bar scene where all the aliens are there, and they're speaking in all these languages and looking really weird? And these people, a lot of them were weird. And they were speaking in tongues, almost. So, I thought, "If I...." Coming back on the plane, I thought, "Now, you know, I think I kind of know my way around in the area of computer applications. What can I bring to my colleagues in nursing who are absolutely unfamiliar with any aspect of it?" So, I thought, "Well, let's put it in something visual." I love making models, anyway. And, "Let's make something visual." So, my image was to construct a three.... I thought, "How could we do research on how we're making progress in informatics if we don't have places to put it?" Because it was so vague and everything. "So how can we name it?" So that was when I came up with the cube, that I thought, "OK, it has three dimensions. One is where are computers going to be used in nursing. Well, they're going to be used in clinical practice. They're going to be used in administration. They're going to be used in education. And they're going to be used in research." So that was one axis of the cube. Then I thought, "OK, now how could we talk about this?" At that point, mainframes were still very much a big piece of the action. Anymore, that of course is very changed. All you have to do is sit around.... There is not, there is hardly a naked tabletop at this conference. Everyone is occupied by a little computer. But, at that time, the second dimension was the dimension of the size of the computer. There were the main frames, there were the minis, and then there were the micros. So that was another dimension. And I can't remember the third dimension. Oh, it was, "Well, what are they going to be, who are they going to be used by?" Oh, "What settings are they going to be used in,"—that was my

third dimension. So, I constructed that dimension, and that became Schwirian's Cube, and that became a place that you could tuck your research question, because every research question needs a home. I mean, as a researcher, you know that. So this be where you could, "What do I want to ask my research question about? Where in this cube can it live?" That's what prompted that.

Interviewer: Now, you sort of mentioned this already, but when you think back to your first involvement in nursing informatics, what were some of the earliest events you recall?

Patricia Schwirian: The earliest things I recall about nursing informatics?

Interviewer: Yes, and you might just repeat that again, but you sort of mentioned SCAMC already, [inaudible].

Patricia Schwirian: OK, yeah. My earliest involvement, of course, was SCAMC. And, so, I, and also then at that time, being involved in the computer, or in *Computers in Nursing* gave me the opportunity to find out who the people were that were working in that area, by going to the meetings, by writing, by reviewing articles that people sent in, to really find out what was going on in nursing, and who the people were that were doing this really creative endeavor, because I found out, like most of us, were sort of lone eagles out there. The university that we were in—maybe there was somebody over in Physics that knew what we were talking about, but nobody in Nursing knew what we were talking about. So it gave us a community of scholars who knew how to communicate to each other, so you didn't feel like you were quite so alone and so crazy to be interested in computer applications and thinking that it had a place in nursing.

Interviewer: Was there anything happening in the social and political environment that either helped or constrained the development of nursing informatics?

Patricia Schwirian: Political and social events—I think probably the.... It was.... What it had probably had been what had gone before, that is, in terms of the Eisenhower administration and the Cold War. Wars always help things along. Unfortunately, they do. And the Cold War helped the idea of information redundancy, which, as we know now with the 9/11, it was because of that established capability of information redundancy that we had Wall Street up and running within five days. And it was that information redundancy that really pushed things along and let us open doors that I think would have been very hard to open without that.

Interviewer: Was it difficult to establish the discipline of nursing informatics?

Patricia Schwirian: Was it hard to establish the discipline? I really couldn't say, because, for me, it wasn't. I had a very willing environment in which I was working. The university was very supportive of it. I had good access to other disciplines to work with. We had a very solid technology base in the information systems. And we had

access to all of that. Now, how it went for other schools, I don't know. Schools like Donna Larsen's—yes, they were gung-ho, and that was wonderful. But, like I said, we always had each other that we could contact and learn from.

Interviewer: How has the field of nursing informatics evolved? And are you surprised at how the field has developed?

Patricia Schwirian: Am I surprised at how nursing informatics has evolved? No, not at all. I knew who the leadership was that was coming along when I saw the likes of Patti Brennan back in the early days, and I thought, "We are in good hands." And it has been proven to be so.

Interviewer: What are some lessons learned that you would like to pass on?

Patricia Schwirian: The lessons that I've learned is you've got to be willing to risk and be adventuresome and be considered a little bit strange from time to time. You will get setbacks, and you won't always win, but you'll be at a different place than you were to begin with if you'd never tried it. You've got to give it a try.

Interviewer: Where do you think this field is going? What opportunities or road blocks are ahead?

Patricia Schwirian: Opportunities? I would say I can see already, when I see in the descriptions in the literature about hospitals and who they're hiring and the titles that are emerging, there are titles that are emerging that never would have been thought of as recently as ten years ago, and a lot of them are there for the nursing informatics people. They're very demanding, and they're very high-paying, which I think is absolutely delightful. And I see more and more academic programs that are preparing nursing informatics people at the Ph.D. level, and I'm very encouraged by that, because then we can start spreading that into other university aspects. Now, they're probably going to have to be able to do something else for a while until they are fully established. But I'm very encouraged by both of those aspects.

Interviewer: Do you have anything to say about the limitations of the field for nursing in practice?

Patricia Schwirian: The only limitations in nursing practice is the thing that still troubles me, and it's always troubled me, and it continues to trouble me, and that is that the entry-level preparation typically does not contain anything about informatics, and that's really unfortunate. And I don't know what it's going to take for that to happen, that a person can walk in the door of a hospital and be expected to have informatics skills that support clinical practice. And they have to be willing to try out new technology, which very often is very difficult to get established in hospital practice, because you always have too much work to do. I can't argue with that. And to say, "OK, we have a new information system that we're going



to work on,” is just saying, “Oh, one more thing.” So, that’s a barrier, but that’s always a barrier, and you just work around them.

Interviewer: Why do we call this “nursing informatics”? What do nurses bring to the party?

Patricia Schwirian: What do nurses bring to the party? It’s what nurses have always brought to the party, and it is their almost single-minded dedication to the wholeness of the people and the humanity and the families to which they have dedicated their practice. We just keep hanging in there, and you just have to keep telling people, particularly physicians. And many of my physician friends—I’m changing their vocabulary. I have one that says, “I can’t even say ‘patients’ around you anymore.” And I say, “Well, that’s OK, Fred.” And, you just have to.... It’s changing their language. It’s changing their orientation. And we have that. We have a very unique grasp of the people and the families and the communities to which we care—for which.

Interviewer: So you don’t call them “patients”?

Patricia Schwirian: They’re clients. They’re participants. They’re people. What do we call people if they aren’t patients? “Patient” has the implication of “Here I am. Take care of me.” People should not be that way. And we have a professional responsibility to have them be participants in their care. They are clients. They have choices to make. They are responsible. And this is a change, and this is why I say I work with many of my medical colleagues. I said I have an appointment over in Family Medicine. And I work on changing their vocabulary all the time, and say, “OK, Fred.” You know, “No, you’re not.... Diabetes, OK. Those aren’t diabetes patients. They’re diabetes clients.” They have so much responsibility for themselves. If they don’t take responsibility for themselves, they’re not going to be successful. So that’s just one example. And more and more, many of our diseases—we’re finding the same thing. It’s self-management. And that makes you a client, not a patient.

Interviewer: Now, we talked for 45 minutes or so. Is there anything else you would like to add, anything you would like to convey?

Patricia Schwirian: Do I want to say anything else? No. I would just say when you see an opportunity that’s sticking out there in front of you, and say, “Gee, should I do that? It’s something that’s really different. I’ve never done it before.” I say, “Do it.”

Interviewer: Thank you.

[End of interview].