

FEATURE



Spynning STORIES

BY ANNA DILEMNA

A new invention records sounds, images, and more onto knitted objects.

Knitters indulge in their craft everywhere. They knit while chatting with friends, while waiting for the train, during family parties, and on camping trips. Oh, the stories those knitted pieces could tell, if only they could speak.

In fact, that just might be possible. The idea — to imbue knitted objects with the memories and stories that unfold as each piece grows stitch by stitch — is one objective at the Center for New Media at the University of California, Berkeley. Professor Kimiko Ryokai and graduate student Daniela Rosner have devised Spyn, a system that allows knitters to incorporate photos, videos, sounds, and time and place data into their pieces.

“When I knit something, all the places I go and the things I experience become a part of that object, but I never felt that those things were available to the person I gave it to,” says Rosner. “We decided to create Spyn so that knitters would have a way to provide a connection between the physical craft and the story that went into its making.”

Here’s how Spyn works. Attached to the knitter’s basket or bag is a knob called the rotary encoder and a small mobile computer equipped with a camera, a GPS tracker, and a touchscreen display (it looks sort of like a large iPhone). As the knitter knits, yarn that has been printed with invisible infrared ink patterns is pulled through the encoder knob, which keeps track of exactly how much yarn has been used. At any point while knitting, the knitter can stop and use the camera to record sounds, take a photo, or make a video.

When finished, the knitter points the infrared-enabled camera at the knitted object, and on the

screen one can see pointers indicating all the places where data was recorded. The computer does this by reading the invisible ink patterns, then correlating them with the encoder data on how much yarn has been used. One simply has to touch the pointers to play back the videos, photos, or recorded sounds and see when and where they were captured.

“We decided to create Spyn so that knitters would have a way to provide a connection between the physical craft and the story that went into its making.”

As part of their research, Rosner and Ryokai enlisted 12 knitters to try Spyn out. One knitter (their names are withheld due to their roles as participants in a study) decided to use Spyn to incorporate the process of baking cookies into a scarf she was knitting for her brother. She took pictures of the recipe and made videos of herself talking as she knitted and baked. “I loved the idea of giving a present that contains so many layers,” she says. “In addition to giving him a scarf, I could also give him a window into my life.”

Another knitter used Spyn to keep records of how she resolved various technical challenges in a scarf she knit for herself. “As a knitter who likes to alter



Spinning a Yarn: *Spyn* creators Professor Kimiko Ryokai (right) and grad student Daniela Rosner (left) demonstrate how *Spyn* works while weaving a tale of the demonstration at the same time.

patterns, start projects without patterns, and teach herself new techniques, I think the record-keeping possibilities of *Spyn* are a great learning tool," she says. "I'm also excited about the idea of producing a web-based gift along with the knit that includes a slide show with captions, music, or the soundscape of the knitting experience and GPS-generated maps of where I was and the paths I traveled during knitting."

The name *Spyn* comes from the storytelling expression "spinning a yarn." Knitting and storytelling have always been linked, and this is reflected in the huge popularity of online knitting communities such as Ravelry and the thousands of knitting blogs where one can read about such varied topics as cable stitches, teething babies, and vacations gone awry all in a single paragraph.

Rosner and Ryokai hope to one day make *Spyn*

compatible with websites such as Ravelry, so that knitters can post pictures of their projects that include embedded links to the photos, videos, and sounds that they included in the knitted projects.

Spyn has quite a journey ahead before it's available to the public, but the fact that it's on the horizon is yet another example of how technology can be used to preserve and extend, rather than undermine, the process of handcrafting.

- ✦ *Spyn* project website: craftzine.com/go/spyn
- ✦ *Spyn* research paper (PDF) by Rosner and Ryokai: craftzine.com/go/spynpdf

Anna Dilemna is a writer and crafter who lives in Madrid, Spain. Her website is annadilemna.typepad.com.