

Montréal Chapter Event on Smart Assistant Technology

The members of the Montréal Chapter Organizing Committee were intrigued by the technology behind the growing presence of smart assistants entering into homes. On that note, they developed a program showcasing some of Montréal's leading start-ups, established artificial intelligence research groups, and assembled academics to present the underlying technology used to support these smart assistants. More than 55 students, academics, and software and hardware engineers attended the event at the Montréal WeWork offices to explore the theme of "Alexa, Siri, Cortana.... What Technology Makes You Work?"

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The technologies explored included the following: "Speech Recognition," described by Vikrant Tomar of Fluent.ai; "Chatbots and Conversational Systems," presented by Frederic Ratle of Automat.ai; and "Natural Language Processing and Intent Parsers," presented by Tavian Barnes, from Microsoft Research. The final two presentations described systems including "Robotics Use of Internet-of-Things Platforms," by Soodeh Farokhi from C2RO; and an overview of "Human-Computer Interaction and Interfaces for Health Monitoring Applications," offered by Dr. Besam Abdulrazak from the University of Sherbrooke, Québec, Canada.

The event was successful in spurring a high level of interaction from the audience with the speakers, and the



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Montréal Chapter was pleased to attract two new volunteers. Some of the mysteries of the smart assistants' underlying technologies were revealed, and the promise of new services could be envisioned for the future.

—Nigel Maund

Technical Writing Course Offered to YPs

Technical writing is not easy when you do not have the proper training. The IEEE Consumer Electronics (CE) Society provided a full-day technical writing course for Young Professionals (YPs) at the

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IEEE 2018 International Conference on Consumer Electronics Taiwan held at National Chung Hsing University, Taichung, on 19–21 May 2018. Akihiko (Ken) Sugiyama was invited as the lecturer for the course.

The course consisted of two parts: a lecture and an interactive practice session. During the lecture, Sugiyama proposed a

useful concept of "slides first" and a powerful "three-sentence introduction" template to improve the logic of one's writing. He then explained some typical traps and presented tips for slide preparation. After the lecture, the participants got

(continued on page 56)

properties of radios or wires. It's also about economics; that is, the architectural separation means we can't pay for the infrastructure by setting a price based on the value of the service, because we just see raw bits out of context.

And it's not just about networks. It's also devices that have open interfaces. It's about thinking about devices that can exist for a purpose but also have open interfaces that allow me—or you!—to use them as components. It is devices and protocols that are smart but not so smart that they build in assumptions. This is why Bluetooth is a problem: it is very tuned to use cases and protocols, and limits me to a proximate relationship rather than factoring out distance.

It would be great to have a discussion about this new world that centers around relationships (binding) and software and creating reusable objects. We understand that meaning is not intrinsic. When we sit on a box, it becomes a chair. What is new is that we can use software to

define or redefine what something is. A portable computing device is a telephone in the sense that it can run a telephony application. This is a sharp departure from the notion that a device is a telephone because it was built for that purpose.

Today's Internet is a by-product in multiple senses. One is that we don't need to build a physical network for one purpose. Another is that we don't depend on networking as a service but simply ask for disparate facilities providers to help packets move ahead, as a highway facilitates driving but doesn't provide the rides themselves—or as we don't apply common carriage to roads, because they are inherently neutral in not knowing the drivers' intent. It's why network neutrality is a fine principle but is hard to define once we aren't depending on network providers' services.

It would be great to have a conversation about these big ideas. And part of it is also rethinking the Internet. The par-

ticular protocols, such as TCP, are valuable, but we need to see them in context as means and not as rigid requirements.

The Internet is just one example of what we can create when we have opportunity. Imagine what else we can do, given opportunities!

Network neutrality is about networks. We need to move on to just assuming connectivity as mundane infrastructure (<https://rnf.vc/BBToInfrastructure>). We can then shift our attention to how to create and what we do with the new opportunities.

ABOUT THE AUTHOR

Bob Frankston (IEEECEMagazine@bob.ma) is best known for writing VisiCalc—the first electronic spreadsheet. While at Microsoft, he was instrumental in enabling home networking. Today, he is addressing the issues associated with coming to terms with a world being transformed by software. He is a Fellow of the IEEE.



Society News *(continued from page 7)*



Akihiko (Ken) Sugiyama led the technical writing course.

a chance to put their new knowledge to practical use. Two brave participants provided their papers as the test beds. Takeshi

Hirai, a Ph.D. degree student at Nagoya University, Japan, provided the first page of his paper including the title and

abstract. The abstract contained many sentences that explained the problem to be solved. Sugiyama advised, “The abstract should be focused on the proposal rather than the problem because reviewers can infer the problem from the contributions of the proposed method.” Following his advice, Hirai began the abstract with “This paper proposes ...” and deleted the sentences describing the problem. This interactive editing was very impressive and useful not only for the author but also for all of the participants.

The CE Society welcomes young people and encourages their energetic contributions to scheduled activities. If you have a fresh idea, contact the YP Committee chair at shingo.yamaguchi@ieee.org.

—Shingo Yamaguchi

