

The 2020 Visualization Career Award

Catherine Plaisant



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University of Maryland, USA
Award Recipient 2020

The 2020 VGTC Visualization Career Award goes to Catherine Plaisant for her comprehensive body of work within the field of data visualization, including her contributions to evaluation, benchmarks, case studies, and her specific research focus on event sequence visualization. Catherine Plaisant is a Senior Research Scientist at the Institute for Advanced Computer Studies of the University of Maryland, USA. She is the Associate Director of Research of the Human-Computer Interaction Lab (HCIL) and holds an International Chair at the Institut National de Recherche en Informatique et en Automatique (INRIA). In 2015 Plaisant was elected a fellow of the ACM CHI Academy, and in 2020 she received the ACM SIGCHI Lifetime Service Award.

Plaisant received an industrial engineering PhD at the Université Pierre-et-Marie-Curie in Paris in 1982. Her first close encounter with computers was during her PhD thesis, building from scratch a voice recognition system for quadraplegic users with little or no mobility to control devices around them. Her first position was at the “Centre Mondial Informatique et Ressources Humaines” (CMI) in Paris, conducting research on early educational systems for young children. Many of the CMI researchers came from US labs, and one of them convinced her to cross the Atlantic. She joined the University of Maryland in 1988.

Her 70 journal articles, 116 conference papers, 15 book chapters and 3 books are the main products of her research. She coauthored with Ben Shneiderman the 4th, 5th and 6th editions of *Designing the User Interface*. She has delivered keynotes at a dozen conferences, advised 35 students, and has been principal investigator of more than 40 successful grants and contracts.

Early focus at HCIL was on hypertext and touchscreen interfaces (which have been influential to the design of current mobile interfaces). Visualization innovations revolved around Dynamic Queries, such as interactive maps for the National Center for Health Statistics, or Query Previews to allow Dynamic Queries to handle the vast directories of NASA scientific datasets. Query Previews became the precursor of faceted search interfaces, now commonplace in ecommerce websites.

While very diverse, many of Plaisant’s contributions have centered around the visualization of temporal event sequences. For example, *LifeLines* was designed to analyze individual personal records using interactive timelines. *LifeLines* has inspired a generation of designers dealing with historical data with applications in medicine, transportation, or customer relations. Subsequently, and working mostly with clinical researchers, a series of

advances were made to the visualization of event patterns in collections of records, culminating in methods for explainable recommendations. During her entire career Catherine strived to create interfaces that truly answer the needs of real users, receiving best paper awards from diverse organizations including the American Medical Informatics Association and the Transportation Research Board.

Plaisant wrote highly cited papers on the topic of evaluation. She co-chaired the 1st Information Visualization competition in 2003, spearheaded the *Beliv* (BEyond time and errors: novel evaluation methods for Information Visualization) workshop in 2004. She was a contributor to the National Visual Analytics Center Research Agenda regarding evaluation needs and goals, and subsequently co-chaired the first Visual Analytics Challenge in 2006. Both *Beliv* and the VAST Challenge remain successful ongoing events at VIS.

Like all modern academic researchers, Catherine’s successful career is the product of teamwork. First and foremost, Ben Shneiderman’s early mentoring, continuing encouragements, and unwavering energy have been a tremendous motor of productivity and led to 34 years of collaboration. Almost half of Catherine’s papers were co-authored with Ben. Catherine is also forever grateful to all the smart and dedicated graduate students and researchers who worked with her. Nurturing the supportive work culture at HCIL remains one of her central activities, and she also now enjoys the creative environment of the INRIA AVIZ lab in Paris – when novel viruses don’t interfere.