

# The New Frontier of Virtual Personal Assistants: Clippardina, the 2019 Microsoft Office Suite Virtual Personal Assistant

A Case Study on Women's Sexualization in Technology – Extended Abstract

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## 1. INTRODUCTION

In a fast-advancing world in which technology is becoming ever more ubiquitous, AI Virtual Personal Assistants (VPAs) offer the possibility of facilitating people's daily lives. Constant, day-to-day participation has opened a gateway to new and improved relationships between humans and technology. Technological devices are becoming ever more tailored to the personal differences and specific needs of individuals and, indeed, are capable of «[interpreting] the intentions of the user and [adapting] to [their] personal preferences just like a good human secretary» [1]. Undeniably, the role of 'human secretary' is typically associated to the female gender [2]. Therefore, it is important to consider the ways in which sexualization and gender stereotyping influence the design of new technologies while becoming the drivers for a new debate to arise.

## 2. DINA: DESIGN CHOICES

Clippy, the Virtual Personal Assistant designed in the 1990s for Microsoft Office, was one of the first of *his* kind ever implemented in early-generation Personal Computers. Currently, a new era of Virtual Assistants such as Apple's Siri, Microsoft's Cortana, and the Google Assistant is upon us. During the *Social Interaction* Course of the Master's Degree in Human-Computer Interaction of the University of Trento, we decided to design a new and improved Microsoft Office 2019 Virtual Assistant (VA), Clippardina – we nicknamed *her* Dina. After extensive brainstorming and researching, we decided to provide our VA with a female and evidently human voice. This decision was consciously endorsed despite the awareness of the possible adoption of gender stereotyping by the end users. We decided to take this route regardless, due to the large amount of literature that supports a Female Anthropomorphic Voice Assistant view (partial literature in references [2] to [8]). Furthermore, the design phase of our project led us to implement a cognitively-anthropomorphized interface, without any visual human resemblance. Clippardina is visually represented by three interactive circles which activate and animate differently through various commands (such as auditory and visual prompts recorded by the computer's internal camera and microphone, which are analyzed by Dina's algorithm in real-time). Nevertheless, we

decided to maintain an auditory female anthropomorphization by giving *her* a (real) human voice.

## 3. RESULTS & FINAL REMARKS

Our interface was presented to a panel of Human-Computer Interaction Master's students and professor, and received both praises and more controversial and critical observations. Indeed, Clippardina was described by the panel as "submissive" and "sexualized" (her voice was compared to that of a pornographic actress or a hotline worker). The criticisms we had to answer focused on 1) our initial choice of gendering our AI VPA, thus perpetuating stereotypical gender roles, and 2) on *her* perceived sexualization. What seemed to be an intuitive, theoretically framed, and design-based choice to better market a product, backfired. Instead, it opened an ethical debate, that still has many unanswered questions we would like to submit to the professionals forming the open, rich and stimulating social environment of the ACM womenEncourage 2019 Conference. We hope to inspire an even broader reflection on the specific topic of sexualization and gender stereotyping also when considering other Virtual Personal Assistants and technology in general.

## REFERENCES

- [1] R. Tafazolli, 2006. *Technologies for the Wireless Future*. John Wiley & Sons Ltd, Sussex, UK, p. 55.
- [2] L. Coleman, 2018, Inside The Tricky Business Of Gender, Voice And The \$190B Artificial Intelligence Game, <https://www.forbes.com/sites/laurencoleman/2018/07/15/inside-the-tricky-business-of-gender-voice-and-the-190b-artificial-intelligence-game/#409eddf75cb2>.
- [3] B. Griggs, 2011, Why Computer Voices Are Mostly Female, <https://edition.cnn.com/2011/10/21/tech/innovation/female-computer-voices/>.
- [4] C Nass & S Brave (2005). *Wired for speech: How voice activates and advances the human-computer relationship*. Cambridge, MA, US: MIT Press.
- [5] A Nadler, S Maler & A Friedman (1984). Effects of Helper's Sex, Subjects' Androgyny, and Self-Evaluation on Males' and Females' Willingness to Seek and Receive Help. *Sex Roles*, 10 (5/6), 327-339.
- [6] F Lee (2002). The Social Costs of Seeking Help. *The Journal of Applied Behavioral Science*, 38(1), 17-35.
- [7] A De Angeli & S Brahmam (2006). Sex Stereotypes and Conversational Agents. In *Proceedings of the AVI 2006 workshop on gender and interaction: Real and virtual women in a male world*, Venice, Italy, 2006.
- [8] H Bergen (2016). 'I'd Blush if I Could': Digital Assistants, Disembodied Cyborgs and the Problem of Gender. *A Journal of Literary Studies and Linguistics*, VI, 95-113.