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Automatic slide progression during a presentation

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ABSTRACT

Advancing slides during a presentation requires human input, e.g., via a clicker, or other input device. Such input requires the presenter or a human assistant to take explicit action. This disclosure describes automatic slide-progression techniques to advance a presentation, e.g., presentation slides, to pages or slides that match a presenter's current speech. With user permission, a machine learning model analyzes the presentation content. It matches the content with speech from the presenter and automatically presents an appropriate slide. The techniques enable the correct slide to be displayed without explicit input from the presenter.

KEYWORDS

- Slide progression
- Presentation
- Speech recognition
- Machine learning model
- Virtual assistant

BACKGROUND

Advancing slides during a presentation is typically done by using a clicker or other input device. Although a clicker helps presenters control their presentation, there are some reliability concerns regarding use of clickers. For example, such concerns include, e.g., the battery condition of the clicker, signal strength to reach host computer, etc. Manually advancing slides, e.g., by using a computer keyboard or mouse, requires the presenter (or another person) to be proximate to the host computer which may be impractical. Timeboxed presentations, in which each slide is presented for a preset amount of time, allow presenters to forego the clicker.

However, this requires presenters to have presentations perfectly memorized and provides little room for deviation.

DESCRIPTION

This disclosure describes automatic slide-progression based on machine learning techniques. Per the techniques described herein, a slide that a presenter is currently speaking about is automatically projected on the display screen or projector. With implementation of these techniques, a presenter simply gets up and starts presenting. Using voice recognition and machine learning models, slides are automatically advanced as the presenter speaks.

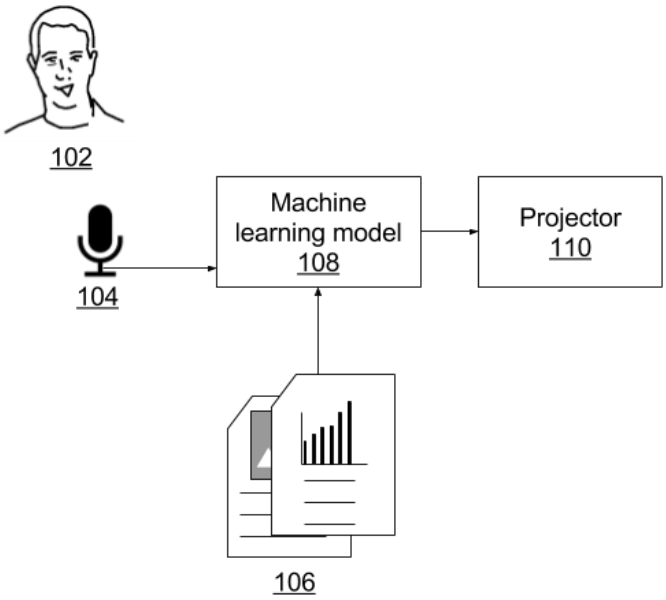

Fig. 1: Slide progression that automatically follows a presenter

This is illustrated in Fig. 1, wherein the speech of a presenter (102) is detected by microphone (104) and with user permission, is sent to machine learning model (108). The machine learning model accesses the presentation (106), e.g., that includes a set of slides, and correlates the detected speech of the presenter to the corresponding slide in the presentation. Having determined the appropriate slide within the presentation, the machine learning model

provides that page to a projector (110) or other display, for display of the slide. In this manner, techniques of this disclosure cause slides within the presentation to follow along with the presenter, with the machine learning model automatically determining the current place in the slide deck and automatically progressing through slides without any effort on the part of the presenter.

Multiple presentations with multiple different presenters are commonplace, especially during large meetings or events. Per techniques of this disclosure, the slide decks naturally progress as the different presenters speak, without clicker handoff or awkward transitions. The techniques are well-suited to remote presenters, who may not get immediate feedback on the status of their presentations as projected on-screen, and hence suffer from synchronization issues.

Upon user permission to provide assistance during a presentation, the machine learning analyzes a slide deck and speaker notes, and processes speech from the speaker to determine when a particular slide is to be presented. Voice triggers are optionally supported, e.g., to allow manual control by the presenter. For example, with implementation of voice triggers, the slide-progression system responds appropriately to commands such as “next slide,” “previous slide,” “slide ten,” “slide with the pie chart,” “Q4 strategy slide,” etc.

When presenters permit use of data regarding presentation habits, the machine learning model learns from such data and customizes slide management during presentations. In effect, the machine learning model acts a virtual personal assistant, that can provide automatic slide progression, and eliminate the need for a presenter or assistant to manually control slide presentations. The machine learning model of this disclosure can be included as part of a virtual personal assistant application.

Further to the descriptions above, a user may be provided with controls allowing the user to make an election as to both if and when systems, programs or features described herein may enable collection of user information (e.g., information about a user's social network, social actions or activities, profession, a user's preferences, or a user's current location), and if the user is sent content or communications from a server. In addition, certain data may be treated in one or more ways before it is stored or used, so that personally identifiable information is removed. For example, a user's identity may be treated so that no personally identifiable information can be determined for the user, or a user's geographic location may be generalized where location information is obtained (such as to a city, ZIP code, or state level), so that a particular location of a user cannot be determined. Thus, the user may have control over what information is collected about the user, how that information is used, and what information is provided to the user.

CONCLUSION

This disclosure describes automatic slide-progression techniques to advance a presentation, e.g., presentation slides, to pages or slides that match a presenter's current speech. With user permission, a machine learning model analyzes the presentation content. It matches the content with speech from the presenter and automatically presents an appropriate slide. The techniques enable the correct slide to be displayed without explicit input from the presenter.