individuals diagnosed with ASD. The algorithm performed extremely well, retrieving all the images efficiently and accurately. Still, future versions of this overall approach could be improved in a number of ways. First, the background-stripping process could be refined so that it works more effectively on a greater number of images. In addition, the software could be improved by allowing users to upload their own images, in case the user's preferred interest cannot be found in the Google image database.

The user study provided a naturalistic setting to test our software. Overall, the software performed robustly and was able to be easily adapted in the moment, providing quick and effective customization. Most importantly, the majority of our participants enjoyed playing customized versions of the games. They seemed delighted to see their preferred interests represented in the software, and this enthusiasm seemed to have increased their overall attentiveness and their willingness to participate in the experiment.

In the future, more research is needed to determine the best way to embed SIs into software programs. While our video games employed an antecedent-based approach, other applications might require a consequent-based approach. There are many ways to embed preferred interests into computer-based programs and, unfortunately, there is no obvious rubric to guide these design considerations. Ultimately, however, the real solution might lie in further customization. In addition to personalizing the embeddable content, new software programs could also personalize how that content is embedded. For instance, software designers could offer users a choice over when and how to incorporate preferred interests into a program. Different users and different software programs might call for different approaches, so it would be wise to build systems that offer several options. Flexible and easy software customization is, in our view, the best way to make computer-based interventions accessible to a wide range of users. And while this particular paper focused on users with diagnoses of ASD and developmental disorders, it should be noted that many individuals could benefit from this approach. Populations that don't usually gravitate towards computers, for whatever reason, could always benefit from new tools that make software more personalized and appealing.

Finally, any programmers attempting to build tools such as those described in this paper should pay careful attention to the terms of use specified by search engine being employed (e.g., Google, Yahoo! or the like). Developers should also make sure that their applications comply with the ever-evolving laws of fair use of copyrighted images.

Also, while our initial experiments were conducted with Google's image database, there is now a Yahoo! Search API which may offer significant technical improvements, including a built-in API for Flash-based programs. Furthermore, the Yahoo! API has lenient terms of use, and it prides itself as being "a truly open API with as few rules and limitations as possible" [37] thus making it an ideal resource for creating new search-based applications. We therefore encourage developers to consider Yahoo!'s search database as a resource. Updates to our instantiation of this project, including examples and source code, will be posted in the "projects" section of the MIT Affective Computing website: http://affect.media.mit.edu/projects.php.

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