Memorial Sloan-Kettering Cancer Prediction Software

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Background. Over the past several years, we have offered software versions of several published prediction tools for free download from our Web site (www.mskcc.org/predictiontools). Some of these models predict prognosis or pathologic status, while others predict incidence. The purpose of this study is to describe the mechanism by which we develop and distribute the software and present some download statistics.

Methods. We develop our handheld Palm and Pocket PC software using the AppForge MobileVB product. Our desktop software, for both online and download use, is written in Flash. Our distribution system is entirely electronic, with digital informed consent and e-mail notification of download links. News of software updates is also distributed via e-mail. All the documentation is also online, managed by a database-driven content management system.

Results. We have found the AppForge environment to be attractive because a single algorithm can be written, but [it can be] ported to many different handheld devices (currently Palm OS and PocketPC). The disadvantage of AppForge is that it requires a free but separate engine (called Booster) to be distributed with the prediction model itself, and both engine and model can have relatively large footprints. Flash has allowed us to improve the look of our desktop interface as well as distribute easily across operating systems, but it is relatively expensive to program. To date, more than 7,000 downloads of our software have been registered, and the prostate cancer tool was named in an ASCO survey as the most frequently mentioned handheld prognostic tool.

Conclusions. It is not too difficult to put handheld and desktop cancer prediction software in the hands of clinicians. Our approach requires relatively little human intervention for the distribution.