

5HVHDFK RQ VWXGHQW UHFRUGV PDQDJH EORFNFKDLQ

/HMLD .RQJ

6KDQGRQJ 7HFKQRORQL YHJG LWXV LQFKVVO 6FIL HDEB JHFG QWLDLHFKIDQ GRQJ &KL

\$EVWUJFVXJK WKH DQDO\VLV RI WKH FXUHQW SUREVOXPHQMR XJHF RLOG
IRXQG WKDW WKH IHDVLELOLW\ DQG QHFHVVLW\ RI DSSO\LQJ EORFNFK
WKH QHGV RI VFKRRO UHFRUG PDQDJH RQIWH ZHHF AXULROOL W KAKRRIODIE
FKDLQ V\WHP DQG GHVLJQ WKH RISHU DEOREN SHQWVWVWVDFH KQ ROU GHUHF
WR UHDOJH WKH LQWLHJOLW\ DQDQWLSSR G VWDI FRDULQJ WKH DOOLDQ
WR IXUWKHU UHDOJH WKH OD\H DQG DUKFKDWFK WJHFWRIUW KHI WAKRF EORFK
WKH HOHFWRQLF VFKRRO UHFRUGV LV GHVLJQH

,QWURGXFWRQ

HOHFWRQLF FRSKRIDWKKLMDCH SDRJW
DSSOLFDWLRQ LV UHYLHZHG RU WUD
VWDWXV ILOH LOIRUPDWLRQ WKURXJK
,Q 7KH *HQHUDO 2IILFH RI WKH
WK)LYH <HDU 3ODQ IRU WKH
\$UFKLYHV ZKLFK FODULILHG WKH
FRUH RI DUFKLYH LQIRUPDWLRQ
FDOOHG DQ LPSRUWDQW IRUFH
GHYHORSPHQW RI DUFKLYHV ,Q
UHFRUGV DUH D YHU\ LPSRUWDQW
LPSRUWDQW UHFRUGV IRUPHG LQ
ZKLFK UHFRUG WKH EDVLF VLWXDWL
KLVWRULFDO PDWHULDOV ZLWK
DGYHQW RI GLJLWDO VRFLHW\ W
FDQ QR ORQJHU PHHW WKH QHGV
HPSOR\HU UHFUXLQPHQW HDRI
WKH FRQVWUXFWLRQ RI WKH QDW
YLJRURXV GHYHORSPHQW RI RS
FRPSDUHG ZLWK IXOO WLPH VWX
OHDUQLQJ H[SHULHQFH RI WKHV
ZKLFK SRVHV QHZ FKDOOHQJHV
UHFRUGV
,Q RUGHU WR DGDSW WR WKH
FKDOOHQJHV WKH DUFKLYHV PDQ
HGXFDWLRQDO LQVWLWXWLRQV PD
DUFKLYHV GLJLWLDWLRQ DQG
VHU\LFH SODWIRUP WR PHHW WK
VFKRRO UHFRUGV 7KURXJK SUD
VFKRRO UHFRUGV DUH VWLOO IDL
UHVSHFWLYHO\ VFKRRO UHFRUGV
XWLOLDWLRQ LV QRW VPRRWK ,
VFKRRO UHFRUGV PRVW RI WKH
UHFRUGV RQ WKH PRELOH
SXEOLVK WKH FRQDFW SKRQH
VFKRRO UHFRUGV GHSDUWPHQW
XSORDG YDOLG , SLFWXUHV
DSSOLFDWLRQV WKURXJK HPDLO
VXFK DV ZHFKDW 7KH DUFKLYDO
&RUUHVSRRQLQJ DXWKRU NRQJOHMLD# FRP

SUDFWLFD DSSOLFDWLRQ & ORXGWSODWHR DQ FDKDNDQJXS IIRBKRIOV U
GHIHFWR RI EORFNFKDLQ EORFNFKDLQ @VMUXEWEUMLH DQDOJH

OLWHUDWXUH UHYLHZ






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%LWFRLO \$ SOHHFWWR SLFH DW, KQVHWH RQLF VFKRRO UHFRUG ILOH E
UHFHQW \HDUV ERWK DW KRPH DQG DEURDG KDYH EHJXQ WR DSSO
EORFNFKDLQ WHFKQRORJ\ WR HOHFWRQLF ILOLQJ V\WHPV 7KH
8. \$UFKDQJHO SURMHFW LV WKH ZAVHDFWFIKUWHWRFRORQ DQO
DSSOLFDWLRQ SURMHFW VSHFLI\FDOO\ DPHG DW WKH LQWHJULW\
PDQDJHPHQW RI UHFRUGV HQYXULQJ WKH ORQJ WHUP
DYDLODELOLW\ @BQGLQWBDUWHFRUGV WKURXJK
GLVWULEXWHG OHGJHU WHFKQRORJ*HGHUDDIWRPHWRHNGRIFKPHQWURC
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OLQNHG LQ WKH SURFHVV RI GRFXPHQWYHFRQWDOGHQW DQG
VSHFLILF FRQWXM DQNLHGWKRIHGHVWDOJSHDQW DWRKE BI EOR
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TXDOLIEFDWLRQV SURSRVHG D PRGHO RI VHFXUH

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RI GLVWULEXWHG OHGJHU 7KLV DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH
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LV D QHZ DOJRULWKP WR HQVXUHSWRSRWHFXUWWRILFU\SKRFRQRQHFQSW
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32: PHFKDQLVP DGRSWHG E\ %LWHFHQWLQJ WKH SURYLGHU UHVSQRV
\$V ZHOODV WKH SURRI RI VWDNRBQ6 PHFKDQLVPV XVHG
E\ 3HHUFRQLQ DQG 1;7 ZKLOH DOVR LPSOHPHQWLQJ WHFKQR

DSSOLFDWLRQ  \$SSOLFDWLRQ SURJUDP
OD

,QWHUPHGLDWK   
SURWRFR OD\HU FRQVHGXV PHFKDQLVP VPDUW FRQWUDFW

QHWZRUN OD\HU   
UROH GHILQLW DFFHVV FRQWL GDWD YHULILFDWLRQ

GDWD OD\HU     
'DWD' FKDLQ 'WLPHV' KDVK IX DV\PPHWULF
HQFU\SWLRQ

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PDLQO\ LQFOXGHV VXPPDU\ FRQWUDFWLW DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH
FRQWUDFW VXPPDU\ FRQWUDFWLW DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH
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SURYLGHU RU SROLF\ DQG UHFHVVW DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH
XSGDWH 7KH UHFHVVW DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH
RI WKH UHFHVVW L H RZQHUVKLS DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH
LQFOXGLQJ UHJGV DQG HGLWV W DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH
ORJ KDV EHQDGGHG WR WKH EORFNFKDLQ DQG WKH FXUUHQW
LPSRUWDQFVW DGHWLFQSXWHV LQKMKFRQMHFXVW\ YH

• 7KH DSSOLFDWLRQ OD\HU SURYLGHV XVHUV ZLWK
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PXOWL SDUW\

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>(% 2/@ KWWSV WSO EMLQWHUQHWFRXUW JRY FQ WSO
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1LH < ; +H - 0 ;LDR . *RYHUQPHQW
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7HFKQRORJ\