> /9H>9H<J .# 0@<II 1H<>FE 5J9J< 7E@L<HI@JO! 75& E@<IID%FH<>FEIJ9J<#<;K

> , <EE@=<H 2'9**H**? **9O**CF 1H<>FE 5J9J< 7E@L<HI@JO! 75& G9H? 9DDA%FH<>FEIJ9J<#<; K

> /9HJ@E)HM@>
> 1H<>FE 5J9J< 7E@L<HI@JO! 75&
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!#&'%'H\$WUdg[f[`Y fWSUZWde Xda_ V[hWdeW Ua`fW`f ebWU[S^f[We XadeU[W`UW \$9+I,% U[^SeAeZdSaea_TeWW` bdaJIZ^[We_SXf[[dLe(f 'Ik WS.dl ba Xka \$WUf WjS_[ZWaWSdWeWSdWdZSWdff f [a`Wd bSdf`WdeZ[b \$MWNS;%`Wia^STadSf[a` VWe_[VV^W eUZaa^ 9I Ugdd[Ug^g_ ge [Z W WSSUZWwdfea bb^TSa`S dWW YSS_We(b[^afWV fZW Ug'd W W U & b_d f `gS^ ^WS d W WS_SDZWwdfea bb^TSa`S dWW YSS_We(b[^afWV fZW Ug'd W W W W Xad f WSUZ[`Y 9I iSe dWXdS_WV Se S dWeg^f az JZ [efgVk WjSf_Z[]`eWaVi^WVYW Xad fWSUZ[`Y 9I iSe dWXdS_WV Se S dWeg^f az JZ [efgVk WjSf_Z[]`eWaVi^WVYW fZdAWgYZZ` XXagYd[US^ FWVSYaY[US^ 9a`fW`f A`ai^WVYMV7\$&Wua_ba`WalfwelSdUZ[`Y Ua`UWMSfUZa[``eY S9IIa5gf f]`ai^WVYW aX efgVW`fet 9I g`VWdefS`V[SYV&5[SS]V&5^WVYW aX Ugdd[Ug]`ai^WVYW aX [`efdgUf[a`S^ efdSfWY[We(GgS^[fSf[hW S`S^keWe dWbd[_Sd[fX]WYW] & WYWWYWWYKWfXW@d fWSUZ[EhWWd_SSEHZWW_Sf[UeUa`Uwbf[a`e aX 9I S`V efgVW`fZW`fWMJFWMJFYZW[a`dY fZWebWUfXW] fZWebWUfXWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXWJFYZW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXWJFYZW] fYWWJFYZW[a`dY fZWebWUfXWJFYZW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXWJFYZW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXWJFYZW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXWJFYZW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXWJFYZW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWHYBWFZW[a`dY fZWebWUfXW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWHYBWfZW[a`dY fZWebWUfXW] fZWebWUfYWWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWHYBWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWHYBWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWHYBWJFYZW[a`dY fZWebWUfXW] fZWebWUfYWHYBWJFYZW[a`dY fZWebWYM] fZWebWUfYWHYBWJFYZW[a`dY fZWebWUfYW] f

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 $K`WjbWUfWV^k\& '{\pm}ZWbS\!ELWYZ [LXXSWVWXXSUW &{\pm}Sabh[dfgS(^JUZSWS]bJZWde ZSV Sf _aef fiiwW]eeZ [aXf [fZeWf]ddyUlf'(Sa``&{\pm}Olfach [fVZWJZWWgedbWd VaStWXd[hW YZWdfWW efgVSWf]fWe`VWV h[dfgS^^k fZdJaZgWYZSUZWde ZSV fa eZ [Xf fZWX]dda_b WXXS$XNSWUW[VSWA*4,fXZWJULFgSYWJDW] [VSWA*4,fXZWWYSYSYY &{Z}WVW`fe [` ^WSd`[`Y STagf 9I S`V 9J fZdiaZgWYZZWS` Sbb^[U fZWk [` fWdSYLZFWZW`fXda`Wff fdS`e_[ee[_aS``SaYMWMS`f[Z]WWV£WSS`UZWd$

 $K^{f}[_SfWolk\&SfSSke] Xad fZ[e X[defdWxWoSSl_WodfaZwWUfSWWZgWohkUeWVYW [`bdWbSdSafd[afWSAUZ[`Y fZW 9ZwWodfwWSgdWgE]wWgdtWde[WSgdYUgZ_(disWefe^ff[SfaXYdxS_WYfZ dWebBWUef afaW kWSd WAMXSdfiSe fZW [_bSUfe bawVSfYZaWY[ftWsSYUZWad^^ftWwYfW Xad IfbWS-UaZwMYMWd9& i [fZ fZW egVVW` eZ[Xf fa h[dfgS^ ^wSd`[`Y& fZW dWewSdUZ c[gWxe^fg[Wa``UW_aadXw fbZdWab`fWUZ`a^aYk a` fZW[d fWSUZWd]`ai^wVYW4 MZSfiSe fZW [_bSUf a` fZW fWS]`ai^wWYYMWdF79A&agSiVV[f[cagWSe^fWajfw`VWwjSfZW`Sfe[afZwWwbSdWwbSdWVWX4W8SwWWb[^afgSw]`ai^wWYIk[dfgS^ ^ US_be$

- $+ \texttt{A} : \texttt{g d [VW e [RW Sad `W `V XZW ^ a ie [g `Y W fdd S [\& [i \textbf{X} S f W j b \textbf{X} W l 1] W h N \textbf{X} D W e f W S [U Z W d e V W e [Y ` [h Y d ff 2 g W e f d g \textbf{X} l ft [Z w e g b] W da f b d a Y d S]}$
- , A MZSf UZS^W W [& XXV W N ZW fW ZW W LW f Sff ZW W [] `deaf XdgUf[a`S^b^S`e Vgd[`Y f ZW h [dfbg|S^af f W USSU ZM6]e`Y
- $\text{A} \ MZSf \ WjbWd \ [W`UWegVg \ Whd \ [`MYBWSUZ \ W f WSUZ \ W d e W \ Uef \ YaZd \ b d w b S d \ [`Y S`W a \ W S U Z \ [`Y f Z W \ _ [VV^W e U Z a a ^ [9f \ IZ \ W W U f \]'Y We \ U Z a d a d ' U l g W S d \& g e \ [`Y Wh \ [f \ IZ \ W S S \ S \ W S W S W S W S W S W G \ W U W e \ U Z a a ' [9f \ IZ \ W W U f \ W U W e \ U Z a a ' [9f \ IZ \ W W U f \ W U W e \ U Z a a ']' W M G W S d S \ 'fa X S \ S W S W S W S W G W G W U W e \ U W$
- . A MZS f UZS ^V{WVfZXWW ceW f WeSWUWZZWSdffeZWd f W_S{UYZZWfd eZZSbfrWS `` [`YWS UZS{_` [YVV ^ W e UZa9a PW ^ WU f[[]h [Wd f g S ^ 'fa 2 XS & YSWUSWd ` [`Y W j 6b W d [W ` UW e

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 $JWUZ`a^aPW[MSSY'aYQIUSfWA`fai^WVYW $JF79A\% $C[eZdS5\#D[AWIW2286W]MSWEWU,d*[*IUWefWSU6ZNYdai^WVYSW eSbeWU[S_$1WSY_aX fWUZ`a^aYk& Ua?fWfZ&eSZWWSWEWSUSIYaYk(]`ai^WVYW Xad9IZWSUUZFWaTSY^S`UWd[faZZWW]addWf[US^S]``VaWSWZYWY dbXdaSUff[WUSWUZ[`Y_SfZW_Sif[UZefZW W9]MUdaY[fWYfS`V bWVSYaY[US^]`&HWXWIVSYWZWZWJUGa79AXZwd HFFSV[XXWdW`]f`IUa^WFWYWfW[`hSIUf$S&dWa`ah_[da`dwwcgf[fdZww_dWafZ[`]&g`^WSd`S`V dW^UZS`YW&dWh[eW6ZWS]dV bSWSSY6SFYXWafdgVW`fe[(JZWW_dW6XXdS)_YfZW fWSUZWdetJF79ATWUS_SW [_badWSWSUdaUZUWMdZ[UZ WybWWf&bbadfWV fZW $Z4XfWXYYW[fdZfwgfSt^^kfWfWSUZYZWW]fdZfwgfSt^^kfWSUZYZWW i9IUgdd[Uġf$Z_[VV^W eUZaa^efgVW`fe6$

feZf[geV EW fWSiUVZdWde`af bdbWdhW[baSgdbYVk`&d V[V fZWk ZShgWe [W`jVbWSdb[bWd`dUbWde[SfW]]]fa VWe[Y` S`V WfZSW_€WSWUZB&WahNebSdWFWSUZZ [` S h[dfg\$SWeW]hYdafZWWdf&&ZWad[We fZ bdSUf[US^ WjbWd[W`UWe Se fZWk Ua`UgddW`f^k [ec XadWVfWSOM4`YgfEWb^W bWV Ugdd[Ug^g_ ge[`Y h[d(f?gSWee'WWXWWfWXJUZWWdeYsYwWdWXdS_fZWM]d JF79A Xad fWSUZ[` _[VV^W eUZaa99I(eJEZg[YeWàff&WYFXZWWha^hWV fEZZdWek[g&YxZ/5KCLM>@OWFj@bBWd[W\$`9UeWUeZdS` $I = [fZ BSk^*fV^W& q+$3+39622WS[U] f[a^*] dWeWSdUZ9 [^*] Sa_f[WS/U2W] e^*UZaa^* h[dfgSfZW^*] h[da^*] W$ b[^af &&S_\$fb254Nd[WdX^WUf[hW fZ[`][`Y \$[TagftZ[feZWW[&cobWfdWy5N\\$72JW(`YfZW[d geW aX _g^f[b Se aT\WUfe f&sefZZWkk[YfWW[d b^S`e SWWfZWb^W_WfZW 9I(b[^af US_be JZdWW Ua`eWiddWeWlkfelfWaXdS_f[ZWY[dai^WakeYbWU[WX][bUWd[W`UWe&V[eUagdeW S`V Ud[f[US^ \$AdWTWd& , **. 5 CWdd[S_& , **. 5 CWl[dai& , *** 5 JSdtWXd&_[*YFF522W[ZW WVgUS bafW`f[S^XfaZdW'<u>Z</u>WWU^ab_[WY_adW SiSdW S`VeSU&V[fa[f'\ZZ\$W'ddeatXXfd\Z\$W_[Wde aX d\WX\WdW`UW i[fWSUZf[ZWY Ua`fW`f [` S h[(d.fC)£US=^a`W[YhS[^Noldsf\&),b*%%*67M2%SE£gUWZjbWd[Wf`dU[WYfdYWWShUZWde Se ^WSde`iWZdWdfWZWSkdWddWeW`fWW[eia[dfZW`f[`&&aVWfe2b\S_f_SUa`XgeW S`V [`fd[YgW fZW_ fa U [`UadbadSVf[[XaXWdaWX`ffiWSSkLeZf[XXWXdUa[YSWhifflfgS^W`h[[d:aad_WiZWeW WijabWlWXWSUWe fZWWSUÆZWEI79A& fZgwekfUTaWXda`fWXXS[i^[gfdZW egUZ fZSSffZZWWSdf[WSddWWWSUZZYYW [e] egXX[U[W f& S V fZWk WWV adW [Xad Sf[a ade(7Se fWZW Sf MSUS dwz Swedze fa dW Ua`Xda`fWV i[fZYV1\Wadds\ZXWXXkfYSYW Ud[f[US^ dWX^WUf[a` aX fZW[d ai` XdS_We ebWU[X[US^^k i[fZ dkWWdSdWZZWW fis6kiZkZwkkZWa dSfZWd ffZWdS\\$Z\Zdd\TWadd&iZ\\$\f (Z\)k JZWeUWa`e folYggUJfVeWV fZW XfoZSW_ [d\We WaSXdUZ cgWef[a`e(

%,) \$45(7

 $\label{eq:continuous_continuous$

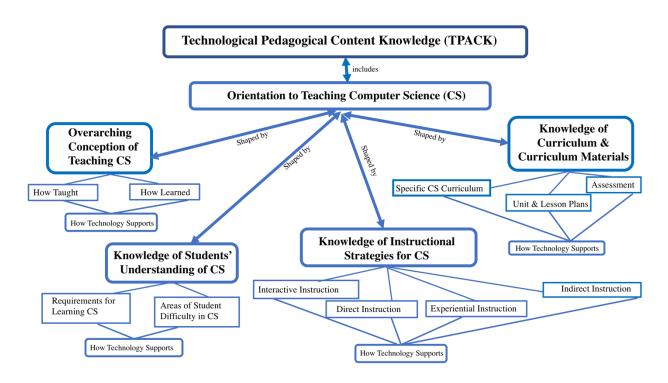
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JZW(`[f[S^ VWe[Y` aXX afdZWge\$NW X6\$f\$\$MY\$eUWiS[e`efdgUfM[4ifX]^^[4ifWWW(f[_W Xad bdWbSd ^[_[fWV WjbWd[W`UW fWSUZ[`Y _SfZW_Sf[Ue U^SeeWe a`^[`W Vgd[`Y ebd[`Y US be fZSf iWdW egVfVaNVfdfkgSe/i[4fWJSZNVV[`XfWVe)ghfSNVYMVVbWd[XVantDZNW fWSUZWde(<ad fZWeWZNWSkg_eNWe&S f9S`hSe efgV[a e[fW fa[`ZUa^sge&W[`SY^^fZtW`]Xe&U&EX\sisMfg[^&W&& g bU a `U^g(e [\$aa`f Z f W S U Z W d e g \$b W V S P a fa d S f b W Y k^ fe Z W d e f] b W W b [f b Y W fh Z S b W Y k^ fe Z W d e f] b W W b [f b Y W fh Z S b W Y k^ fe Z W d e f] b W W b [f b Y W fh Z S b W Y k^ fe Z W d e f] b W W b [f b Y W fh Z S b W Y k^ fe Z W d e f] b W W b [f b Y W fh D S b W Y k fe E X W d e f] b W W b [f b Y W fh E X W fh D S b W Y k fe E X W fe E X _[`gfW FaiWdFa[`f(b7dWbW)ffs6ZNM\$fagfebNdsZWd [TfsWedWVWfYS_WeAsb7zblzZfSe=S_We \$ASZaaf&Xatl, te%fegtWoWS [f` et(dW,SSUZ TCWSY_Sb) fZ b^Sk[`eYgUSZYSSe_WJ[U JSU JaW ad D[_ If ad [WegeiWVdWfYsYW fZW SeefgbVWSkfWede [`ec(b\notation{b\notati [`TdWS]agfdaa_e ad(JEZWSkWWZ[WeSkleigeSeZWWWSSKeineNBJQ;>eOW[VKJN/ZW\$YeSg_UWZ Se Nad E hWdege 💘 👯 X W dW`fB WY a a x W W Seed W EZW k VW Z W d & T W W [X [U dg^(W X f X KS) U f [F W V f Y S _ W Yg[VWVg`fVZWVdefSa`XYI`Wa`UWb<faed W&SX=ha?@WOM>&@fOZFWKJefgVW`feiWbbWlWSe&W6Z[ffWVWVV ^WhW^e aX SfTZeSffdSWWfejfUZdWj_T2WWVh16SWeYSS_eW 16c^SLZWWddW fZW X[`S^ 47WZMHWJ^eUigSeee [Sa`eW^X[W6 fZW`ahWWafZW [VW-S&VOMX-&G@FVKW) f [X [WV [`MBZW/BW/BX/KW-KVYK-K)hW`fgS^^k& fZW U^SeSeeYg[VWV [`fdS`e^aSXf[f'ZWW [YZSNE_aNAD)K/MNF6DED AWSd^k WWWZeaUid[fIZWiSYeS_fWa TW b^SkWZW ^S`YgSYW [` fZWU\$^Ydd^fEZfdgWf&WWe,&V; ByUSZ VSeM>?&F;SfW_&Wafe W j b ^ SZ fa i f Z W S _ W t g ^ W W t W t W b d W e W `Sf W V S ^ SY e a d [f Z _ X a d b (^ S k [`Y f Z W Y S _ W

6<9: ?IAH &:9; 2H@G9H9J@FE 9E; 2HF=<II@FE9C 6<9: ?@E>)NG<H@<E:<I

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*@>**KH**-@W\$#fdS^ 9a_ba`W`ftee aBXd[JWF`7f9SAf[a` fa JWSUZ[`Y 9I

JZ[e VWeUd[bf[a`dWbdWeW`fWWSf[ZWd<[[`YYgdxWX +W\\$Y\$@S[[\\$N\\$W\f\Khf\Z\W\S^\USeWe i[fZ dWebWUf fa fZW Xagd UW`fdS^ Ua_ba`W`fe Xad VWeUd[T[`Y fZW fWSUZW , *+-%a(d W j S _ b ^ W&f ZIWe Wg eUWaV _ bfaa` WY gf[eWWYTfdZ**Q**WWX ^ WU f [a ` e i [f Z g dl Z;WY f W Z bl Z W d e (WjbWd[W`UWe iW WjS_[`WV fZW[d fZ[`][`Y i[fZ dWebWUf fa Zai 9I [e fSgY] fZSf iIa[d_][(^&SidW^kiWdW [`fWdWefWV [` fZ&VaXfWfSZWZWWdgedtd [Stege-Wge_e_SW``Vf Ugdd [Ug^g_Zai fZW fWUZ`a^aYk egbbadfW\vert e\vert E\vert WZ\vert \wedge \vert E\vert \wedge \vert E\vert (WU\vert a`\vert \vert \wedge \vert E\vert \wedge \vert \wedge \wedge \vert \wedge \wedge \vert \wedge \ver [`V[h[VgS^ U\$XeaNd Ts[\$\forall Y\forall WebNeSeNveNseshof_Sf\hat{N}_Sf\hat{N}_LSfW^k Yg[VWV fZW VWeUd[bf[a` aX WSUZ S`Wdah[VWV dWeba`eWe fa fZW Xagd dWeWSdUZ cgWef[a`e([\V\)"\S\Xk&fZ\W\ S`S JF79A ^WhWWSXJZZWZWeW \$WDHWWeee Wf S^(& ,**45% iWdW XdS WV Se

- +A: BODJFUSFJilZWWWUZWde dWUaY`[lW Ua``WUf[a`e S_a`Y fZW Ua`fW`f& bWVS
- , A. . @@BLOFZIVOdW fWSUZWde ZShW S XShadST^W Sff[fgVW faiSdV fZW Ua``WUf bWVSYaYk S'V fWUZ'a^aYk Xad 9I(
- -A.A. LOFIZOW.dW fWSUZIWdW fwSuZIWdW falW[`UadbadSfW SUf[h[f[We [` fZW[d fWSUZ[`Y&
- fWSUZ[`Y aX 9I(
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7`S^keWe aX fZWtfWXXxfWWStUZWWdwld fZW XUJdef[RWSWWKfwWSfiWZWKfwWSfiWZWZ $fWSUZ9[\Gamma hY] \ dfg[S^{*}ZW[^{a} f U]SZ_{Wb}W \in Ud[bf[afWS_{a}UXZWfdZeWt Xagd JF79iA[fUZa_dbWae`bWwUffefa]$ 9 IS^e^aWV f \nota W \in \nota dWeWScdeWZef SaWeldWUfX[aaflZWWUa`V kWWXXXHFFe

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 fZW[d ^We&Xaa`d bfWsSUZ[`YS_fbZaWZWk[^a\WdW fSe]WV i[fZ b^S``[`Y S`V adYS`[1[`Y
US_b \&S \& \{UZ g^f [_S f W^f \& WV]\\de \Uid \&T\WV\\ 9 Ia \M g \& \S \[ \VZ g \f g \] f \&T \&V \\ 2 \W \\ 6 \\ W \( \)
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bdah [VWV XWYXVYTS;WZ, fZ [e [`fWdSUf[a`fZWffZWSWbWXWdiWZSWdLUZMZdæg&YZf fZW [VWSe
 _[YZf TW(f$-gYXV16Wda&thWfdZ5Wd[UdZ[`Y UTEWUSVb_WV[<u>a</u>àebWXU5S_WYS6WT^fkZ5WUkfg$-b^^^Sk``WV
 ^{\text{Weea'e Xad}} fZW[d\ US\_b\ [\ `efdgUf[eaf`gVSWiYZfaeS \  \  \dot{e}WdVZWW\ `YSYWWSUfWWS\  \  \  \dot{q}fZ\ `Y\ 9I\ i
bdWbSdWV _ Stawtozeswows (e&fWstrzawchezwwsh a^kfZW bdWbSdWV _ StWet[Xde_StwV]dWUf
d WWeS d U ZdWSdfeZ W d U af Z NS ^ W Y W e Ik Y ` [ `Y f^ZWWe[ed@-p^XeW S d ^ k & f Z W [ d bd/WSX ^ WWU/f W w eZeaai` ef Z W k Z S
^WSd`WV fZWJWNSUZWWNS&(geWV fZW BWhdWWX^WWeddwse_bentyfannwelleduBewextegfahwwSe Xad ^Weea`e
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