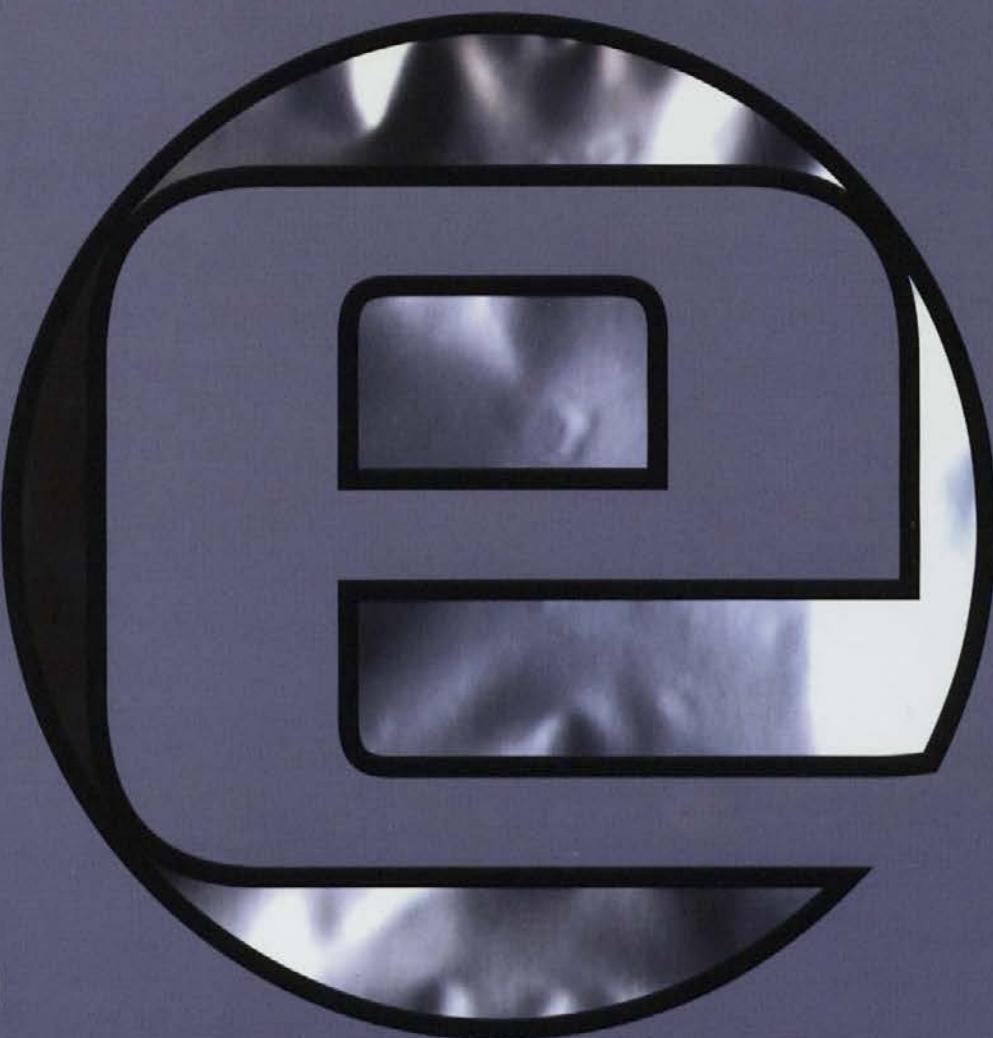


a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t
u
v
w
x
y
z

INFORMATIKA



2001

ŠTEVILKA 4

OKT/NOV/DEC

LETNIK IX

ISSN 1318-1882

posebna številka:

e-uprava

e-government

DONATORJI



ASTER

Nade Ovcakove 1, 1000 Ljubljana
Tel.: +386 01 589 42 00



Savska c. 3a, 1000 Ljubljana
Tel.: 01 437 63 33



Vaš partner v informatiki

MAOP RAČUNALNIŠKI INŽENIRING D.O.O., WWW.MAOP.SI

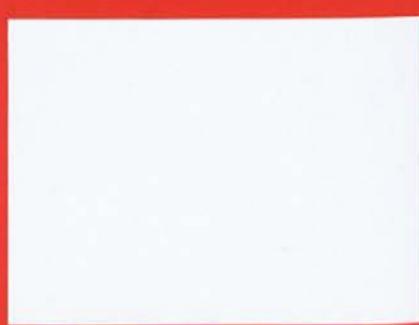
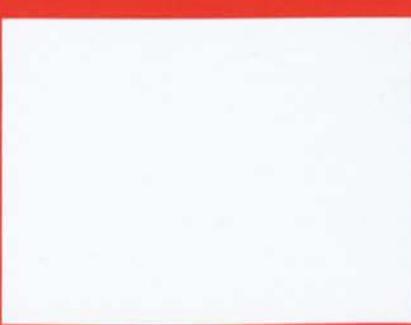
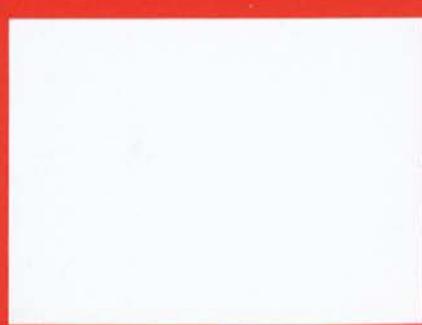
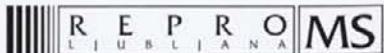


MARAND

Napredna računalniška hiša

Cesta v Mestni log 55, 1000 Ljubljana
Tel.: 01 283 33 77

Microsoft®



*vsebina***INFORMATIKA**

■ Uvodnik	
■ Spremna beseda	173
■ Aktualno	
Ministrska deklaracija	174
■ Razprave	
Mirko Vintar: E-uprava deset milisekund po velikem poku	176
Janet Caldow: Seven E-government Leadership Milestones	184
Patricia Diamond Fletcher: The Changing Landscape of the U.S. Federal Government: Electronic Delivery of Information and services	191
Marin Silič: Izvajanje strategije e-poslovanja v javni upravi RS za obdobje od leta 2001-2004	198
Heinrich Reinermann: Internet Portals in Public Administration – The Readjustment of Information and of Administrative Practice	206
Roman Tomažič, Marjan Krisper: Zasnova elektronskega poslovanja v javni upravi RS	212
J. John G. Mooney, Eimear Farrell: Exploring the Value Proposition of eDemocracy	222

To revijo sofinancira Ministrstvo za šolstvo, znanost in šport
Izid tematske številke je podprla Visoka upravna šola Univerze v Ljubljani

Navodila avtorjem

Revija Uporabna informatika objavlja originalne prispevke domačih in tujih avtorjev na znanstveni, strokovni in informativni ravni. Namenjena je najširši strokovni javnosti, zato je zaželeno, da so tudi znanstveni prispevki napisani čim bolj mogoče poljudno. Članke objavljamo v slovenskem jeziku, prispevke tujih avtorjev pa tudi v angleškem jeziku. Vsak članek za rubriko Strokovne razprave mora za objavo prejeti dve pozitivni recenziji.

Prispevki naj bodo lektorirani, v uredništvu opravljamo samo korekturo. Po presoji se bomo posvetovali z avtorjem in članek tudi lektorirali.

Polno ime avtorja naj sledi naslovu prispevka. Imenu dodajte naslov organizacije in avtorjev elektronski naslov. Prispevki za rubriko Strokovne razprave naj imajo dolžino cca 30.000 znakov, prispevki za rubrike Rešitve, Poročila, Obvestila itd. pa so lahko krašči.

Članek naj ima v začetku Izvleček v slovenskem jeziku in Abstract v angleškem jeziku. Izvleček naj v 8 do 10 vrsticah opisuje vsebino prispevka, dosežene rezultate raziskave.

Abstract naj se začenja s prevodom naslova v angleščino.

Pišite v razmaku ene vrstice, brez posebnih ali poudarjenih črk, za ločilom na koncu stavka napravite samo en prazen prostor, ne uporabljajte zamika pri odstavkih.

Revijo tiskamo v črno beli tehniki s folije, zato barvne slike ali fotografije kot originali niso primerne. Objavljali tudi ne bomo slik zaslonsov, razen če so nujno potrebne za razumevanje besedila. Slike, grafikoni, organizacijske sheme itd. naj imajo belo podlagko. Po možnosti jih pošiljajte posebej, ne v okviru članka.

Článku dodať kratek življeniesprávny autor (do 8 vrstíc), v keterom poučarite predysem deľovne došedzé.

Z vsa vprašanja se obračajte na tehnično urednico Katarino Puc. Prispevke pošiljajte na disketi in papirju na naslov Katarina Puc, Slovensko društvo informatika, Vožarski pot 12, 1000 Ljubljana, ali samo po elektronski pošti na naslov katarina.puc@drustvo-informatika.si.

Po odločitvi uredniškega odbora, da bo članek objavljen v reviji, bo avtor prejel pogodbo, s katero bo prenesel vse materialne avtorske pravice na društvo INFORMATIKA. Po izidu revije pa bo prejel plačilo avtorskega honorarja po tedaj veljavnem cenu, ali po predlogu glavnega in odgovornega urednika.

Naslov uređništva je:

Slovensko društvo INFORMATIKA, Uredništvu revije Uporabna informatika, Vožarski pot 12, 1000 Ljubljana
www.drustvo-informatika.si/electro

© Slovensko društvo INFORMATIKA, Ljubljana

Vsem članom Slovenskega društva INFORMATIKA, sponzorjem revije in drugim bralcem

želimo

Srečno 2002

* * *

Uredništvo revije

uporabna INFORMATIKA

Spoštovane bralke in bralci,

pred vami je zopet tematska številka, v kateri smo osrednjo pozornost namenili e-upravi. Od dosedanjih tematskih številk se razlikuje predvsem po tem, da je dvojezična in v njej objavljamo prispevke večjega števila uglednih tujih avtorjev. Zahvala za to gre predvsem gostjujočemu uredniku, prof.dr. Heinrichu Reinermannu, ki se je prijazno odzval vabilu uredniškega odbora, da sodeluje pri pripravi te številke in je k sodelovanju uspel pritegniti skupino tujih uglednih strokovnjakov za področje e-uprave.

Za spremno besedo tej tematski števili smo poprosili dr. Pavla Gantarja, ministra za informacijsko družbo, ki je prav tako prijazno pristal na sodelovanje. Objavljamo tudi ministrsko deklaracijo s sestanka ministrov novembra v Bruslju, ki je nedvomno zelo aktualna za našo obravnavo. V osrednjem delu pa objavljamo seveda tudi prispevke domačih avtorjev.

Elektronsko poslovanje uprave ali na kratko e-uprava je skoraj čez noč postalo nosilna tema vseh pomembnejših strokovnih in znanstvenih srečanj, ki se tako ali drugače ukvarjajo z elektronskim poslovanjem. Kljub temu sodimo, da so številne dimenziije tega razvojnega fenomena še vedno dokaj neznane in pogosto preozko razumljene. Osrednji cilj gostjujčega in tudi stalnega urednika revije je zato bil, predstaviti čim širši spekter tem, razvojnih razsežnosti obravnavanega fenomena in gradbenih blokov bodoče e-uprave. Razvoj e-uprave pomeni postavljanje temeljev neki novi upravi, katere delovanje bo slonelo na vrsti povem novih principov in načel, ki jih je potrebno še oblikovati in razviti. Razviti bo potrebno celo vrsto členov v verigi, da bo sistem začel delovati in prinašati napovedovane učinke.

After some forty years of computer-use in public administration one might ask whether there still is room and need for new approaches to EDP. And yet - there is. Electronic Government (E-Government) is such a new concept, and this Special Issue is going to describe and to explain it.

E-Government aims at utilizing the boundary-penetrating potential of today's information technologies (IT), with special emphasis on the Internet technologies, to create improved models of state and administration. The IT at our disposal now is considered to be an "enabling technology" - enabling us to find answers for at least some of the challenges, the state is facing today, among them: higher demands by the people for transparent governments, for participation, and for more legitimacy of public affairs; the demand for more and better public services, inspite of scarce financial and personnel resources; the opportunity of many people to compare computer-use in business companies and in public agencies directly and personally; the desire for simplified public procedures, for a one-stop government; and more.

Janet Caldow hits the nail on the head in claiming that eGovernment can be and must be a lot more than simply transforming given public services and acitivities online, as they are. The clue of eGovernment lies in creating new administrative models, based on today's information technologies and better apt to

Poleg znanstvenih razprav o razsežnostih fenomena e-uprave, smo zato skušali v to številko uvrstiti tudi prispevke, ki predstavljajo konkretno pristope in probleme njenega uvajanja v našem domačem okolju. Temu je bil prirejen tudi vrstni red objavljenih prispevkov v tej številki.

Mirko Vintar skuša v prvem delu svojega prispevka opredeliti širše značilnosti fenomena e-uprave, analizira globoke spremembe, ki jih le-ta prinaša v zasnovno upravnega delovanja in opredeljuje nekatera osnovna načela, ki bi jih veljalo upoštevati pri nadalnjem razvoju. Posebno pozornost posveča nekaterim strukturnim in organizacijskim spremembam, ki so nujne, za pospešen razvoj na tem področju. Še posebej pa izpostavlja tudi nujne spremembe pri nadalnjem razvoju informacijskih sistemov v upravi, ki bodo od izrazito enosmernega v bodoče morali zagotavljati prevladujoč dvosmerni pretok informacij.

Marin Silič se osredotoča na strategijo Vlade R Slovenije pri uvajanju elektronskega poslovanja v javno upravo. Pri tem izhaja iz gradiva, ki ga je v začetku leta sprejela Vlada in je temeljni strateški dokument pri razvoju tega področja. Strategijo Vlade podrobno razčlenjuje ter izpostavlja njene najpomembnejše značilnosti in projekte, na katerih bo temeljil nadaljnji razvoj.

Roman Tomažič in Marjan Krisper pa predstavljata nekatere ključne elemente bodočega sistema e-uprave, ki so bolj skriti običajnim uporabnikom njenih storitev, vendar brez njih sistema ni mogoče vzpostaviti. Predstavljata tako imenovano meta raven temeljnih registrov in podatkov, ki tvorijo hrbtenico sistema delovanja e-uprave.

Trudili smo se, da bi omenjeni slovenski prispevki skupaj s tujimi kar se da zaokrožili paleto tem in vprašanj, ki se odpirajo v okviru razvoja in konkretnega uvajanja e-uprave v različna družbena okolja, in še posebej v Sloveniji. O uspešnosti naših prizadevanj pa boste presodili bralci sami.

Glavni in odgovorni urednik
Mirko Vintar

meet today's challenges of state and administration. However, the high level of change involved in eGovernment of this kind requires a high level of sustained leadership engagement over several years as well.

Patricia Diamond Fletcher looks into eGovernment in the United States of America as a country which supposedly is advanced in this field. According to her impression, the high diffusion of Internet technologies in the economy and among the population of the US also calls for the introduction of eGovernment. She gives an overview of the state of the art and stresses that - besides an appropriate legislative framework - a proper policy framework is the key prerequisite for eGovernment.

Heinrich Reinermann analyses the potential of Internet portals. Such portals aim at electronically bridging the gaps between layers of government and between agencies, business companies and Third-sector institutions, which may be involved in a certain life or business situation (like building a home or starting-up a business). Thus, an Internet portal helps to overcome the drawbacks of the division of labor in our societies, from a user's point of view. However, exploitation of this concept requires quite some re-organization of the data bases and procedures in public administration.

John G. Mooney and Eimear Farrell deal with an aspect which often remains in the background of eGovernment projects - the so called eDemocracy. They suggest that the potential of today's information technologies be utilized to better inform the people about public affairs and to invite them to participate more in public decision-making. Thus, the "input legitimacy" of state and administration could be improved. However, the authors do not consider the Internet technologies a panacea for the perennial problems of democracy.

Heinrich Reinermann, guest editor

Če se človek ne more čemu izogniti, je to gotovo javna uprava. Prvič stopi v stik z njo, ko se še niti ne zaveda svojega obstoja na svetu in ko ga ni več, je njegova zadnja življenjska sprememba, tako rekoč postfestno zabeležena v uradnih knjigah. Od zibelke do groba torej, vsaj v modernih in organiziranih državah. Če smo že, včasih po sili zakona, včasih pa po lastni volji vezani na javno upravo in njene storitve, nam tudi ni vseeno, kakšna ta uprava je, kako zagotavlja storitve, ki jih potrebujemo, koliko je torej nam po volji in koliko je sama sebi v namen. Vsi vemo, da je treba plačevati davke, toda če jih plačujemo na nam, davkoplačevalcem, priazen način imamo vsaj vtis, da se nam za nekaj, kar nam sicer ni posebej všeč ni bilo potrebno še posebej truditi in trpeti.

Za javno upravo je značilna birokratska organizacija, kar pomeni, da hierarhije, pravila in vloge odrejajo ravnanje javnih (državnih) uslužbencev, ne glede na potrebe, želje in hotenja tistih, ki stopajo v stik z državo. Dokler je bilo stikov z javno (državno) upravo le malo, to ni bilo tako moteče. Danes, ko potrebujemo številna dovoljenja in moramo posredovati čedalje več podatkov, pa je tradicionalno delovanje javne uprave že moteče. Od nas zahtevajo podatke, ki jih že imajo, sicer v nekem drugem upravnem organu in to nas vodi od okanca do okanca včasih na isti, včasih celo na drugi lokaciji. Vrste so postale neizbežno dejstvo.

Temu je treba napraviti konec. E-javna uprava lahko v veliki meri pripomore k temu. Vendar se motimo, če mislimo, da lahko samo z uvajanjem elektronskega poslovanja v javno upravo in z rabo interneta pri komuniciranju z njo že rešimo najbolj očitne probleme. Treba je spremeniti pogled na delovanje in organizacijo javne uprave. Najbolj pomembno pa je, da se mora javna uprava preobraziti iz klasično birokratskega ustroja v organizacijo, ki bo uporabniško usmerjena. Javna uprava si mora zadati cilj, da bo kar najhitreje zadovoljila potrebe in pričakovanja državljanek in državljanov, to je, da jim bo omogočila, da bodo kar najhitreje izpolnjevali obveznosti, ki jim jih je država naložila. Šele v kontekstu reforme javne uprave, ki torej upošteva posameznika z vsemi njegovimi specifičnostmi in potrebami in se mu prilagaja, e-poslovanje v javni upravi dobi pravi smisel in pomen. Nove možnosti elektronskega poslovanja je potrebno razviti tudi pri postopkih, ki niso najbolj na očeh posameznih uporabnikov, torej na segmentu tako imenovanega G2G, torej elektronskega poslovanja med državnimi organi. Pri tem imamo najprej v mislih povezovanje baz podatkov javne uprave, ki omogočajo njeni bolj učinkovito delo, večji nadzor nad kvalitetom dela, predvsem pa odpravljajo podvajanja pri posredovanju podatkov. S tem se

lahko izognemo lepemu številu potrdil, dokazil in podobnih papirjev, ki jih pridobimo od enega organa, da bi jih posredovali drugemu.

Tedaj pa nastopijo tudi možnosti za hitro uvajanje poslovanja G2C in G2B, torej med javno upravo in njenimi državljanji ter gospodarstvom. Ker je javna uprava organizacijsko zelo diferenciran organizem, od državljanek in državljanov pa ne moremo pričakovati, da bodo dobro poznali njen notranji ustroj, je potrebno zasnovati takšne portale javne uprave, ki bodo prek vodenja skozi različne življenjske situacije omogočili z enim klikom dostop do pravih informacij in storitev. Sicer pa stopnjo razvitosti in uporabnosti portalov javne uprave presojamo na že uveljavljen način: informativna, interakcijska, transakcijska in integrirana stopnja. Pri nas smo nekje na prehodu od informativne v interakcijsko stopnjo, s tem, da imamo pri nekaterih aplikacijah že tudi elemente transakcij. Prehod na transakcijsko stopnjo se bo v večji meri zgodil, ko bomo razvili in uveljavili aplikacije e-dohodnine in e-DDV, ter nekatera bolj zapletena dovoljenja.

Prav pri opredelitev tistih upravnih storitev, ki jih lahko priredimo za elektronsko poslovanje, je potrebno opraviti še največ dela. Treba je poenostaviti postopke, jih v celoti standardizirati po vseh upravnih enotah (temu danes še ni povsem tako) in poskrbeti za visoko stopnjo varnosti in zaupnosti transakcij, še posebej kadar gre za občutljive osebne in denarne zadeve.

Sicer pa je nedavno ministrsko srečanje v okviru Evropske Unije v Bruslju v Ministrski deklaraciji izpostavilo naslednje pomembne vidike, ki jih moramo upoštevati pri nadalnjem razvoju e-javne uprave:

- zagotavljanje vključevanja vseh, kar naj upošteva ljudi s posebnimi potrebami in uporabo različnih in komplementarnih komunikacijskih kanalov za dostop do storitev;
- promocija zaupanja in varnosti z jasno opredeljeno politiko zasebnosti, ki vključuje tudi promocijo elektronskega podpisovanja in overovljavanja;
- razvoj na podlagi najboljših praks; poudarjena je bila potreba po mednarodni izmenjavi izkušenj in uvajaju tistih dobrih aplikacij, ki so se že obnesle;
- spodbujanje sodelovanja, ki naj prinese večjo stopnjo vključevanja prebivalcev v demokratične procese na lokalnih, regionalnih, nacionalnih in evropskih ravneh;

Slovenija danes gotovo sledi procesom uvajanja e-javne uprave v evropskem merilu, v nekaterih aplikacijah (G2G) pa je celo na celu. Tudi v naprej je vlada odločena nadaljevati z začrtano potjo, ne predvsem zaradi nje same, pač pa zaradi državljanek in državljanov, ki si končno že zaslужijo enostavne, hitre in učinkovite storitve, ki so dostopne s katerega koli mesta in na kakšen koli način.

*Dr. Pavel Gantar
Minister
Ministrstvo za informacijsko družbo*

Ministrska konferenca eGovernment
Ministrska deklaracija, sprejeta s soglasjem 29.11.2001

MINISTRSKA DEKLARACIJA

Bruselj, 29-30 November 2001

V okviru konference eGovernment, ki sta jo organizirali Evropska komisija in belgijsko predsedstvo Svetu Evropske unije, so se v Bruselu srečali ministri držav članic Evropske unije, držav EFTA-e in držav, ki se pogajajo za članstvo v Evropski uniji.

Ob tej priložnosti so ministri poudarili svojo politično voljo za hiter razvoj e-uprave¹, ki je ključen del lizbonske deklaracije za rast in zaposlovanje ter Akcijskega načrta eEurope. Ministri so pozdravili dosežke držav, ki se pogajajo za članstvo v Evropski uniji v okviru Akcijskega načrta eEurope+ in izrazili pripravljenost za sodelovanje pri modernizaciji javnih uprav.

Z ozirom na Resolucijo evropskih ministrov o javni upravi in javnih storitvah² in Poročilo Konference »e-uprava kot storitev za posameznike in podjetja³«, so bili ministri enotni, da je v luči nadaljnega razvoja Lizbonske strategije treba prednostno obravnavati vprašanja, povezana z e-upravo.

Zagotavljanje vključevanja vseh

Ministri ugotavljajo, da morajo biti pri oblikovanju spletnih storitev, ki bodo enostavno dostopne vsem, v središču pozornosti prav posamezniki in podjetja. Ministri so se poleg tega seznanili s poročilom o »e-Vključevanju⁴« in izrazili strinjanje, da je potrebno več pozornosti posvečati ljudem s posebnimi potrebami, kot so invalidi ter ljudje različnih starostnih in jezikovnih skupin.

Ministri so si bili edini, da je potrebno storitve zagotavljati v okviru različnih, komplementarnih komunikacijskih kanalov: spletnih⁵ in tradicionalnih; v okviru obojih pa je potrebno zagotoviti neposreden dostop do odgovornih in tudi pomoč, kjer je ta potrebna. Kateri komunikacijski kanal bodo izbrali, pa naj bo prepričeno posameznikom. Ministri so izrazili zaskrbljeno zaradi vse večje odvisnosti od ozkega kroga ponudnikov in proizvajalcev informacijsko komunikacijskih tehnologij in zahtevali večjo konkurenco. Ministri so se zavzeli za izmenjavo izkušenj in zaprosili Evropsko komisijo za podporo pri razvoju alternativnih odprtih virov, kjer bo potrebna. V tem pogledu bodo bistveni

interoperabilnost omrežnih infrastruktur in storitev ter odprtvi standardi in »tehnološko nevtralna« regulativa.

Promocija zaupanja in varnosti

Ministri priznavajo, da sta zaupanje in varnost predpogoja uspešne vzpostavitve spletnih storitev e-uprave. Ministri so bili enotni, da je potrebno v ta namen krepitev vseevropsko sodelovanje, da bi zagotovili ustrezeno varnost omrežij in varen dostop do storitev e-uprave. Glede zagotavljanja javnih storitev v elektronski obliki, ki vključuje tudi varstvo zasebnosti in zagotavljanje varnosti, so ministri Evropski komisiji predlagali oblikovanje skupine strokovnjakov, ki naj razišče nacionalne režime in orodja elektronskega poslovanja, podpisovanja in overjanja ter opredeli možnosti za ukrepe poenotenja na omenjenih področjih na ravni Evropske unije in katere delo in predloge bi ministri pregledali leta 2003. Ministri so menili, da je za ta vprašanja pristojen predvsem bližnji »Telekomunikacijski svet⁶« in bili enotni, da je potrebno spodbujati široko uporabo elektronskih podpisov povsod, kjer je to mogoče tako v okviru javne uprave kot v gospodarstvu do leta 2003.

Razvoj na podlagi najboljše prakse

Ministri so se strinjali, da je v luči učinkovitega delovanja e-uprave treba izvesti notranjo reorganizacijo, predvsem pa strukturne spremembe in novo organizacijo dela, usposabljanje in izpopolnjevanje znanja ter prilaganje novim pogojem zaposlovanja. Ministri so bili enotni, da je potrebna medsebojna izmenjava izkušenj, usposabljanje in izboljšanje kakovosti dela ter delovnih pogojev v javnem sektorju.

Ministri so se seznanili s primeri dobre prakse, predstavljene v okviru Konference in bili enotni, da je potrebno raziskati, kakšne so možnosti širjenja le-teh v

1 E-uprava je pomensko usklajena uporaba angleškega izraza eGovernment (op.prev.).

2 Resolution of European ministers of Public Service and Administration, Strasbourg 7.11.2000.

3 IDA-conference »eGovernment in the service of European citizens and enterprises – what is required at European level«, organizirana s strani Evropske komisije in švedskega predsedstva 13.-14.6.2001 v Sandhamnu.

4 »e-Inclusion« report of the high level Group on employment and the social dimension of the information society (ESDIS) in Resolucija Svetu Evropske unije 8.10.2001.

5 Na primer: telefonski ali kabelski modem; GPRS ali 3G mobilni brezžični dostop, itd.

6 Svet Evropske unije 7.12.2001.

okviru njihovih držav ter v širšem evropskem in svetovnem okviru. Ministri so v ta namen povabili Evropsko komisijo k nadaljnji natančnejši opredelitvi metodologije vrednotenja.

Ministri priznavajo, da odpirajo informacijsko komunikacijske tehnologije neslutene priložnosti za enostavnejši dostop do informacij javnega značaja in da bodo bolj jasno opredeljeni pogoji za njihovo uporabo prispevali k višji gospodarski rasti in zaposlovanju v vsej Evropi. Ministri so bili enotni, da bodo nemudoma posvetili vso pozornost predlogom Evropske komisije na tem področju⁷. Strinjali so se, da je treba posvetiti še posebno pozornost zagotavljanju informacij javnega značaja od evropskih institucij.

Ministri so dali pobudo nacionalnim upravam in institucijam Evropske unije k oblikovanju skupnih stališč, ki naj izpostavijo pomen in bistvo delovanja eServices (e-storitve) na vseevropski ravni in postavijo osnove skupnih temeljev za e-upravo, ki naj temeljijo na Evropskem forumu eGovernment in eGovernment Observatory-ju⁸.

Ministri so pozvali vse države, tako razvite, kot nerazvite k sodelovanju in izmenjavi izkušenj o najboljši praksi z Evropo.

Spodbujanje sodelovanja

Ministri so bili enotni, da so informacijsko komunikacijske tehnologije učinkovito orodje pri zagotavljanju kakovostnih storitev uprave in izpostavili pet temeljnih načel⁹: odprtost; možnost sodelovanja vseh; zanesljivost; učinkovitost in poenotenost. Ministri priznavajo, da je, v luči prehoda na e-upravo, potrebno doseči napredek v vseh omenjenih pogledih, zaradi česar so pozvali evropske institucije, naj v skladu s tem sprejemajo in izvajajo ustrezne rešitve e-uprave.

Ministri priznavajo, da informacijsko komunikacijske tehnologije prispevajo k bolj neposrednemu sodelovanju pri demokratičnih aktivnostih in lahko tako krepijo sistem predstavnike parlamentarne demokracije v Evropi¹⁰. Poleg tega so ministri priznali pomen poglobljenega sodelovanja v lokalnih, regionalnih, nacionalnih in evropskih demokratičnih procesih. Ministri so se strinjali, da je potrebno raziskati, sprva na nacionalni ravni, skupaj

z MEP in drugimi, kako bi lahko uporaba informacijsko komunikacijskih tehnologij pripomogla k večjemu zavedanju, zanimanju in sodelovanju v evropskih demokratičnih procesih, še posebej v luči prihajajočih evropskih parlamentarnih volitev leta 2004. Ministri so tudi priznali pomen informacijsko komunikacijskih tehnologij pri odkrivanju novih priložnosti v okviru razvoja »e-skupnosti« (»e-community«) in obljudili spodbudo in podporo tem procesom.

Pogled v prihodnost

Ministri priznavajo, da se mora transformacija proti cilju e-uprave razvijati v smeri od prve generacije na internetu temelječega zagotavljanja informacij do popolno interaktivnih storitev. Ministri so povabili Evropsko komisijo k potrebnim investicijam na področju raziskovanja in tehnološkega razvoja, še posebej v okviru šestega okvirnega programa, ter k investicijam, namejenim zagotavljanju interoperabilnosti in povezljivosti z naslednjo generacijo infrastrukture in odprtih sistemov¹¹. Ministri so poleg tega preučili potrebo po postavitvi prednostnih nalog, ovrednotenju in koordinaciji iniciativ, povezanih z e-upravo¹² pri čemer so povabili Evropsko komisijo, naj natančneje preuči možnost sinergij med posameznimi aktivnostmi v okviru e-uprave.

Ministri so bili enotni, da zahteva dinamična, demokratična evropska družba, z močnim, produktivnim gospodarstvom, storitveno usmerjeno, zanesljivo in inovativno upravo na vseh ravneh. Uspešno izvajanje e-uprave lahko ponudi kakovostenje storitve, krepi družbo, poveča produktivnost in blaginjo in utrdi demokracijo. Ministri so potrdili svojo zavezo dolgoročni viziji, z jasno opredeljenimi, izmerljivimi cilji in predvsem stalnostjo.

Ministri so se strinjali, da od predsednika sveta Evropske unije zahtevajo, da na prihodnjih srečanjih predstavi zaključke konference in še posebej Ministrsko deklaracijo predsednikom držav in vlad.

Ministri so pozdravili povabilo italijanske vlade, da o razvoju na področju e-uprave razpravljajo na podobni konferenci v Italiji, julija 2003, in se hkrati seznanili z načrti Združenih narodov ob svetovnem vrhu Združenih narodov o informacijski družbi, v Genovi decembra 2003.

Naslov izvirnika:

http://europa.eu.int/information_society/eeurope/egouconf/documents/Ministerial%20declaration%20English%202003-11-01.pdf

7 Sporočilo Evropske komisije o vzpostavitvi pravnega okvira na ravni Evropske unije o dostopu do podatkov v interesu javnosti.

8 Slednjega podpira program IDA.

9 COM (2001)428, 25.7.2001

10 Stališče srečanja evropskih parlamentarnih delegacij v Helsinki in Tallinu septembra 2001.

11 To vključuje tudi hiter in skladen prehod na broadband access in naslednji internetni protokol.

12 V okviru Trans-evropskih komunikacijskih omrežij, programov IDA, eContent in eLearning ter na področjih regionalnega razvoja; zaposlovanja in socialnih zadev; raziskovanja; informacijske družbe; izobraževanja in kulture ter podjetništva.

E-UPRAVA

DESET MILISEKUND PO VELIKEM POKU

Mirko Vintar

Povzetek

Čeprav se o e-upravi v zadnjem času zelo veliko piše, se le-ta obravnava prvenstveno kot tehnološki fenomen. Vse bolj pa postaja jasno, da zahteva razvoj e-uprave globoke spremembe tudi v temeljnih organizacijskih načelih in še posebno v samih poslovnih procesih. Prispevek obravnava upravno-sistemske in organizacijske vidike fenomena e-uprave. E-uprava radikalno spreminja notranji organizacijski in procesni ustroj upravnih sistemov in tehnološke osnove njihovega delovanja, še bolj pa načine komuniciranja uprave z njenimi uporabniki, občani in organizacijami ter naravo in kakovost njenih storitev. Opredelili bomo naravo teh sprememb in temeljna načela, ki bi jih morali upoštevati pri nadalnjem razvoju e-uprave.

Abstract***E-Government ten milliseconds after the big bang***

Although much has been written about e-government, it has been considered primarily as a technological problem. It is becoming evident, though, that the development of e-government requires profound changes in basic organisational principles and particularly in business processes, too. The article considers management and organisational points of view of e-government phenomenon. E-government radically changes internal organisational and process structure of government systems and the technological basis of their operations. Moreover, it changes the ways of communication with its users, citizens and organisations, the nature and quality of its services. We shall define the nature of that change and basic principles which should be taken into account at further development of e-government.

**1. Uvod**

Strokovnjaki za internet in elektronsko poslovanje pravijo, da je le to v razvojni fazi, primerljivi z univerzumom, približno deset milisekund po velikem poku, to je v fazi eksplozivnega širjenja, za katerega pa ničče ne ve, kam nas bo pripeljalo in kje je njegov konec, če ta sploh obstaja. Za fenomen e-uprave bi lahko uporabili podobno slikovito primerjavko, narava razvojnega procesa je podobna, njegove dimenziije in končni izid pa enako neznan. O razvoju tako imenovane e-uprave in njegovem pomenu za nadaljnji razvoj javnega sektorja, se v zadnjih dveh letih izjemno veliko govori, čeprav je sam fenomen tudi v strokovni javnosti še dokaj neraziskan in zato pogosto različno ali celo napačno razumljen. Z zelo meglemimi predstavami, kaj ta fenomen v resnici pomeni za upravne sisteme in številne poizkuse njihovega reformiranja pa se pogosto srečujemo tudi v praksi in celo med eminentnimi upravnimi strokovnjaki.

Pri uvajanju e-uprave ne gre le za naslednji korak v avtomatizaciji in informatizaciji, skratka za zvezno nadaljevanje procesa tehnološkega razvoja uprave, ki smo ga začeli nekje v sedemdesetih letih preteklega stoletja. V resnici gre za razvoj povsem novega načina poslovanja uprave, ki v celoti sloni na uporabi informacijskih tehnologij in interneta, kar pomeni raz-

voj novih mehanizmov upravnega delovanja, novih postopkov in kar je še posebej pomembno tudi nove ponudbe storitev, ki je uprava v preteklosti ni poznaла. Dosegli smo torej razvojno točko, ko tehnologija ni več zgolj sredstvo za dosego ciljev, pač pa začenja bistveno vplivati tudi na cilje same. Razvoj novih upravnih postopkov in storitev bo začel kmalu vplivati tudi na upravne strukture in s tem na organiziranost uprave. Potreba po radikalnem prestrukturiranju, ki je že nastopila denimo v bančništvu, predvsem zaradi vse bolj razširjenega brezgotovinskega poslovanja in uvajanja telestoritev, bo v bližnji prihodnosti zadela tudi druge storitvene dejavnosti in uprava ne bo na jibrž nikakršna izjema.

Reinermann ugotavlja (Reinermann; 2001), da postaja eksplozivno širjenje uporabe interneta v javnem sektorju z vsemi tehnološkimi, sociološkimi in ekonomskimi posledicami in spremembami, ki jih prima, strateško politično in seveda vodstveno vprašanje. Do enake ugotovitve so prišli tudi udeleženci Druge mednarodne konference združenja zakonodajnih teles Evrope (septembra 2000 v Ljubljani), ki so se ga udeležili parlamentarci 13 zahodnoevropskih držav in ZDA.

E-uprava ni le tehnološki fenomen. Plaz sprememb se je sprožil, ko je razvoj informacijske tehnologije in interneta dosegel določeno kritično razvojno točko, spremembe, ki so se že začele odvijati, pa bodo imele dolgoročne posledice v normativni, organizacijski in celo v politični ureditvi javnega sektorja. Brez pretiravanja lahko govorimo o začetku razvoja nove organizacijske paradigme uprave.

V prvem delu prispevka bomo skušali podrobnejše opredeliti, kaj je e-uprava in kakšne spremembe prinaša v upravne sisteme. V nadaljevanju pa bodo predstavljeni tudi nekatera načela in izhodišča, ki bi morala služiti kot osnova in vodilo pri razvoju elektronskega poslovanja uprave, da se bo ta res razvijala v smer učinkovite in uporabnikom prijazne uprave.

2. Opredelitev e-uprave ter značilnosti sprememb, ki jih prinaša

Izraz e-uprava je star šele dve leti. Z njim mislimo intenzivno uvajanje uporabe interneta in elektronskega poslovanja v upravo, znotraj uprave med upravnimi organi, navzven z občani, podjetji in drugimi organizacijami (glej tabelo 1). To pomeni, da bodo lahko občani, podjetja in ostali nevladni sektor, ko bo e-uprava v resnici delovala, večino uradnih zadev, dovoljen in dokumentov pridobili kar preko svojega računalnika oziroma interneta. Na ta način e-uprava odpravlja slabosti, ki uporabnike sedanje uprave najbolj motijo: čakanje v vrstah, uradne ure, neprijazne uradnike itd. Na voljo bo vsem na enako prijazen ali neprijazen način 24 ur na dan in sedem dni na teden. Delovala naj bi bistveno hitreje in bolj pregledno. Celo podkupiti jo bo veliko teže.

Tabela 1: Glavne razvojne smeri in komunikacijske poti e-uprave

	občani	javni sektor	gospodarstvo	nevladne organizacije
občani		X		
javni sektor	X	X	X	X
gospodarstvo		X		
nevladne organizacije		X		

Sliši se skoraj kot pravljica, ali bo vse to res? Znano je, da gredo vse velike ideje in koncepti običajno skozi tri značilne razvojne faze. Prva je faza navdušenja, ki je bolj ali manj evforična in nekritična, saj na začetku praktičnih izkušenj običajno še ni, vse se vidi samo v bleščeči luči. Potem se začnejo nabirati izkušnje, nizajo se delno uspeli in neuspeli projekti in poizkusi uporabe, kazati se začnejo tudi različni stranski učinki, na začetku neznani ali nepredvideni, nastopi faza streznitve. Po dovolj nabranih izkušnjah, ki pozitivno

vplivajo na nadaljnji razvoj ideje ali koncepta nastopajo faza zorenja in ta šele pokaže celotno idejo, njen pomen in vrednost za prakso v pravi luči. S fenomenom e-uprave smo nedvomno ta hip že v prvi od zgoraj opisanih faz, to je v fazi dokaj nekritičnega navdušenja, se pravi že zelo na začetku, zato so mnoga od naših napovedi in pričakovanj ta hip že nekoliko poenostavljena in naivna. Toda najbrž ne precenjujemo velikostnega reda sprememb, ki nas na tej poti čakajo, verjetno podcenjujemo le velikost in naravo problemov, ki jih bo potrebno na tej poti rešiti.

Štirje povezani vidiki razvoja e-uprave

Omenili smo že, da bo uvajanje e-uprave zahtevalo njen celovito prenovo in prestrukturiranje poslovanja, postopkov in storitev, to pomeni najprej notranje organizacije dela, dolgoročno pa tudi institucionalno in teritorialno. Gre za kompleksen projekt, ki nima zgolj tehnološke dimenzijs, pač pa poudarjeno procesno, organizacijsko, pravno, sociološko in še kakšno. Povedano z drugimi besedami: če želimo ponuditi občanom po internetu eno samo samcato storitev, denimo podaljšanje potnega lista, moramo poleg tehnoloških rešitev, ki v glavnem obstajajo, zagotoviti še spremembe ustreznih predpisov, organizacijske rešitve, plačila taks po internetu, dostop do javnih registrrov itd. Omenili smo enega od bolj preprostih primerov, postopkov in storitev, ki jih izvaja javni sektor, je pa na tisoče.

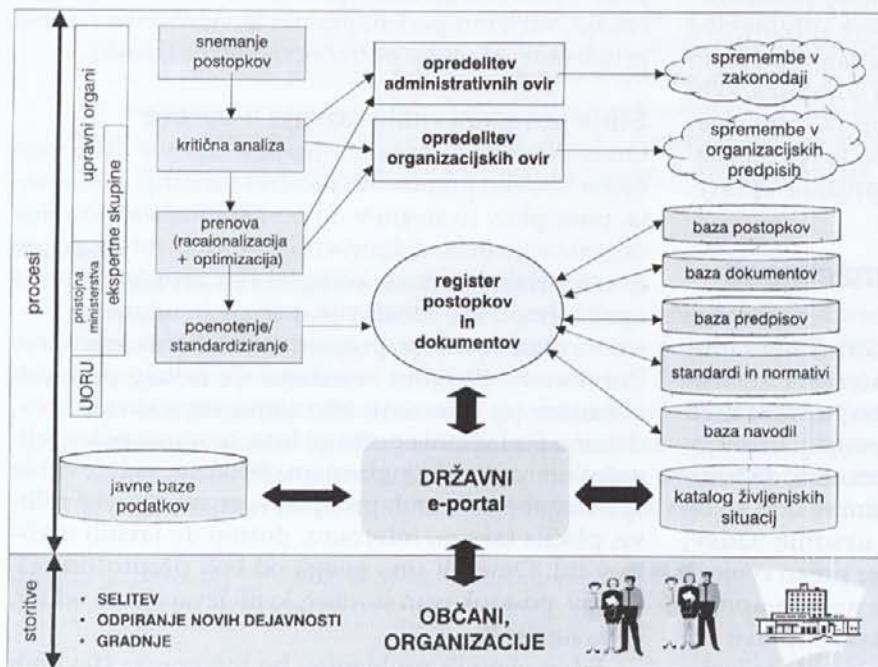
Eden glavnih problemov bo integracija številnih ločenih evidenc, pristojnosti, medresorskih povezav ter iskanje povsem novih notranjih organizacijskih rešitev. Da bi lahko vpeljali e-upravo, bo treba s številnimi med seboj tesno povezanimi projektmi v podrobnosti analizirati poslovanje vseh upravnih organov, identificirati, posneti, prenoviti in poenotiti postopke, dokumente in storitve, razviti enoten način njihovega izvajanja, njihove predstavitve in ponudbe na internetu, enotne pristopne mehanizme itd (slika 1). Že danes se predstavlja na internetu večina upravnih enot, vendar vsaka na svoj način. Če ne bomo pravočasno postavili enotnih standardov, klasifikacij, skratka enotnega metodološkega pristopa in nasprotno pristopili k uvajanju e-uprave od vrha države navzdol, se nam bo zgodilo, da bomo imeli nekaj deset e-uprav in ne ene same.

Nekaj tovrstnih projektov je že v teku in dosedanje izkušnje kažejo, da je potrebno pri razvoju e-storitev uprave vzporedno delovati na štirih frontah. Ni dovolj razvijati zgolj sodobne tehnološke rešitve. Za njihovo učinkovito uvedbo je potrebno predhodno prenoviti temeljne procese poslovanja upravnih organov, prenoviti zakonodajo in odstraniti normativne ovire, ki pogosto preprečujejo uvajanje sodobnejšega poslovanja in ne nazadnje razvijati tudi nove organizacijske

prijeme in rešitve, da bo e-uprava dejansko delovala učinkoviteje in hitreje od klasične.

Torej lahko govorimo o štirih vidikih razvoja e-uprave:

- tehnološki vidik,
- pravni vidik,
- organizacijski vidik,
- procesni vidik.



Slika 1: Proces razvoja e-storitev

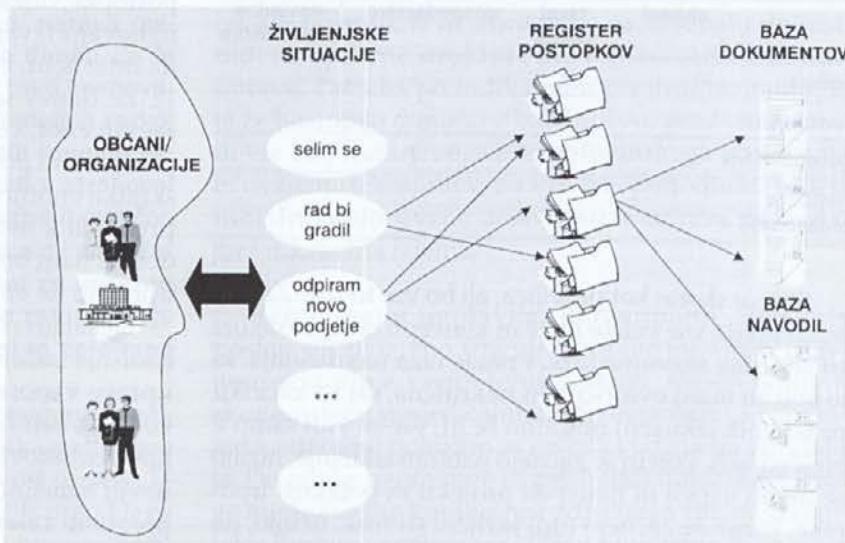
V prvi fazi, za začetni razvojni zagon, je seveda najpomembnejši **tehnološki vidik**. Osnovne tehnološke rešitve so potrebne, da lahko sploh začnemo razmišljati o elektronskem poslovanju uprave, potrebna je tudi neka minimalna opremljenost z informacijsko tehnologijo znotraj uprave in prav tako med njenimi uporabniki. V tem trenutku že obstajajo temeljne tehnološke rešitve in tudi minimalna opremljenost znotraj uprave. Najslabše stojimo s številom priključkov na internet, kar zelo omejuje absorbcijsko sposobnost uporabnikov, tudi če bi ponudba elektronskih storitev že obstajala v večjem obsegu. Glede na izkušnje drugih držav, bi moralno število uporabnikov interneta čimprej doseči vsaj okrog 40% prebivalstva, kar pomeni dobro izhodiščno osnovo za naglo širjenje uporabe e-storitev.

Pravni vidik ima v upravi poseben pomen. Gre za zagotavljanje sistemskih pogojev za razvoj učinkovitega in varnega e-poslovanja v upravi. Ti so bili vzpostavljeni s sprejemom Zakona o elektronskem poslovanju in digitalnem podpisu, popravki Zakona o splošnem upravnem postopku, Zakona o varstvu osebnih podatkov in pravkar sprejeti novo Uredbo o pisarniškem poslovanju. V nadaljevanju nas sicer še čaka sprememjanje materialne zakonodaje na večini upravnih področij, vendar to lahko teče postopoma, z razvojem ponudbe storitev.

Na organizacijskem področju nas čaka še veliko in večina dela. Razviti je potrebno Register postopkov in dokumentov, kot temeljno podatkovno bazo bodoče e-uprave, kataloge življenjskih situacij, storitev uprave, navodil, številne klasifikacije in standarde itd. Vse to je le osnova za razvoj javnih e-portalov, brez katerih ponudbe e-storitev sistematično preprosto ni mogoče vzpostaviti. Portale je potrebno razvijati v obliki trinivojske arhitekture portala življenjskih situacij (slika 2).

Daleč najobsežnejše in najzahtevnejše delo nas pa čaka na **procesnem področju**, kjer moramo v celoti prenoviti ali celo na novo razviti vse poslovne procese

in postopke v upravi in jih prilagoditi novim možnostim in pogojem poslovanja (Wulf, 2001). Če se nam bo pri uvajanju e-uprave zatikalo, in vse kaže, da



Slika 2: Shema trinivojske arhitekture portala na bazi življenjskih situacij

bo tako, se nam bo najbolj prav na tem področju. Procesni vidik je najzahtevnejši iz treh razlogov. Prvič, v upravi imamo opravka z izjemno velikim številom različnih vrst storitev in postopkov, v celotni upravi več tisoč, prave številke ta hip nihče niti ne ve. Drugič, pri izvajanju prenove poslovnih procesov se srečajo vsi zgoraj navedeni vidiki, ki jih je potrebno hkrati usklajeno reševati ter iskat integrirane rešitve, sicer ne pridemo nikamor. To zahteva tesno sodelovanje med številnimi upravnimi resorji, ki ga je pri nas zelo težko doseči. In tretjič, izvajanje številnih procesov in postopkov presega meje in pristojnosti posameznih resorjev, zato jih lahko uspešno prenovimo spet samo s tesnim sodelovanjem vseh prizadetih resorjev, kar pa pogosto pomeni, kot že rečeno, nepremostljivo oviro.

3. Izhodišča za nadaljnji razvoj e-uprave

Vse razvite države so se uvajanja e-uprave lotile izjemno resno in pospešeno. Pri tem ne gre zgolj za skrb za občane ter njihovo dobro počutje in zadovoljstvo z upravo, čeprav je to v vseh državah z daljšo demokratično tradicijo zelo visoko postavljena vrednota. Gonilna sila razvoja elektronskega poslovanja je vsekakor zasebni sektor, gospodarstvo, v okviru katerega je začela nastajati tako imenovana nova ekonomija, ki se razvija na osnovi naglega razvoja povsem novih dejavnosti in storitev v okolju interneta. Ker je zasebnemu sektorju najpomembnejši poslovni partner prav uprava, bi lahko prepočasno uvajanje e-uprave zaviralo celoten razvoj elektronskega poslovanja podjetij in s tem nove ekonomije.

Tega se najbolj razvite države zavedajo, zato so si postavile izjemno napete roke, pravzaprav dobesedno tekmujejo med sabo, pri hitrosti uvajanja e-uprave, ZDA že do leta 2003, večina članic EU pa v obdobju med 2003-2005. V tem času naj bi ponudile vse storitve občanom in podjetjem po elektronski poti!!! Tudi Evropska unija ne drži križem rok, postavila je zelo ostre smernice na tem področju. S tem je tekma med najbolj razvitim pri uvajanju e-uprave postala ne le strokovno in tehnološko, pač pa tudi prvorazredno razvojno in politično vprašanje.

Temeljna načela pri razvoju in uvajanju e-uprave

Nekatera temeljna načela upravnega delovanja, ki so se razvijala skozi desetletja, da ne rečemo stoletja, so izpostavljena zgodovinski preizkušnji ali pa so očitno že povsem odveč, kot denimo:

- osebni stik s stranko, kot temeljno sredstvo osebne identifikacije,
- načelo krajevne pristojnosti, kot temeljno organizacijsko načelo pri ponudbi storitev in izvajanju postopkov itd.

Pri razvoju e-uprave ne smemo ubirati preveč bližnjic, saj nas bodo dolgoročno drago stale. Navidezno bi lahko najhitreje in najenostavnejše napredovali, če vzamemo kot izhodišče za razvoj e-storitev vse obstoječe upravne postopke in storitve, take, kot se izvajajo danes. Dilema je podobna tisti izpred približno enega stoletja, ko so se na tedanjih kolovozih, zgrajenih za kočije in tovorne vozove, pojavili prvi avtomobili. Na hitro posodobiti kolovoze ali začeti z gradnjo pravih avtomobilskih cest, na katerih avtomobil šele pokaže, kaj dejansko zmore? To kar počnemo sedaj pri razvoju prvih e-storitev je seveda bliže 'posodabljanju kolovozov' kot gradnji novih pravih 'avtocest'. Najboljši primer za to so izpiski iz različnih uradnih evidenc (matičnih knjig, registra prebivalstva, zemljiškega katastra itd), ki jih upravni organi izdajajo na zahtevo občanov, ker jih morajo leti predložiti v dokazilo, da so bili rojeni, da stanujejo na določenem naslovu itd, drugim upravnim organom. Najhitrejša in najlažja pot pri uvajanju e-uprave je, da ponudimo občanom te izpiske po elektronski poti. Vendar je to le navidezno korak naprej. Prava pot je, da zahtevamo od organov, da si zahtevane podatke, ki jih uprava že ima v svojih evidencah, priskrbijo sami, občane pa v celoti razbremenimo skrbi za dokazovanje dejstev povezanih z njihovimi osebnimi stanji, ki so upravi že znana. Seveda pa to zahteva spremembe v množici upravnih postopkov, spremembe v zakonodaji itd, kar pa je lahko nekoliko zahtevnejša in dolgotrajnejša pot.

Zato je izjemno pomembno, da že na začetku postavimo nekaj splošnih načel, ki se jih bomo skušali držati pri razvoju in uvajanju storitev e-uprave.

Med temeljna načela, ki bi jih morali uveljavljati v prihodnje pri razvoju rešitev e-uprave, bi uvrstili naslednja (Vintar, 2001) :

1. Načelo dosledne uporabe e-dokumentov

V okviru razvoja in uveljavitve e-uprave mora elektronski dokument čimprej dosledno nadomestiti papirnat dokument, kot delovni, komunikacijski in arhivski medij za obravnavo informacij v državni upravi. Danes smo v najbolj neugodni hibridni situaciji, v kateri kljub temu, da hranimo že veliko večino vseh uradnih informacij v upravi na elektronskih medijih, poraba papirja še vedno narašča. Število zahtevanih izvodov različnih tipičnih dokumentov, kot so mnenja, soglasja, sklepi, odločbe, pogodbe, računi itd. se ne zmanjšuje. Gre za področje, ki posega v same korenine

upravnega poslovanja in je neločljivo povezano s prenovo poslovnih procesov in postopkov v upravi. S papirnim poslovanjem ne bomo prišli v e-upravo. Problema se bo treba lotiti s posebnim zakonom ali vladnim aktom, podobno kot so to storili v ZDA (glej Paperwork Reduction Act; 1995, Government Paperwork Elimination Act; 1998).

2. Načelo enkratnega obveščanja

Občani in organizacije so dolžni vsako spremembo, ki zadeva njihov status do države, sporočiti le enkrat, na eno mesto. Na upravi je, da integrira informacijske sisteme in izvede spremembo povsod, kjer se obravnavani podatki hranijo. Denimo, če se preselim, sporočim to enkrat samkrat, preko državnega e-portala in vsi organi, ki vodijo o meni podatke o mojem naslovu, bodo obveščeni o tej spremembi.

3. Načelo obveznega pridobivanja mnenj in soglasij po uradni dolžnosti

Upravni organi ne smejo zahtevati, niti sprejeti od občana nobenega dokumenta, mnenja ali soglasja, ki dokazuje dejstva, ki so upravi že znana. Na ta način bo odpadla velika večina poti, ki jih morajo opraviti danes občani sami, pri iskanju različnih potrdil, mnenj in soglasij, ki jih pridobijo pri enem upravnem organu, zato, da jih lahko fizično predložijo drugemu upravnemu organu. Prvo, kar bomo s tem odpravili, je izdajanje izpisov iz matičnih knjig, zemljiške knjige, katastra itd, kar pomeni danes številčno morda eno tretjino vseh upravnih postopkov. To so postopki, ki jih sedaj prioritetno dajemo na portal. S temi postopki si upravni organi sami sebi, še bolj pa občanom, ustvarjajo nepotrebno delo. Če potrebuje upravni organ pri izdaji potnega lista potrdilo o državljanstvu, naj ga pridobi sam, saj te podatke uprava že ima.

4. Načelo poslovanja brez osebnega stika s stranko, če to ni nujno potrebno

Razvijali bomo rešitve, ki bodo zagotavljale varno poslovanje na daljavo, ne da bi stranka morala samo zaradi osebne identifikacije obiskati upravni organ osebno.

5. Načelo delovanja po sistemu 'vse na enem mestu' (one stop shop)

Za tiste, ki uporabljajo internet, bo 'vse storitve na enem mestu' nudil elektronski državni portal, za preostale pa e-kioski in e-uradi, kjer bodo lahko občani na enem mestu, sami ali s pomočjo usposobljenega uradnika, opravili večino uradnih opravil, vsekakor vsa opravila, ki se nanašajo na osebna stanja (prijave, odjave, poroke, rojstva, smrti), na izdajo in podaljšanje osebnih dokumentov, pa tudi zahtevne-

jše upravne zadeve, kot je izdajanje različnih soglasij in dovoljenj.

Seveda uveljavitev teh, in morda še nekaterih drugih temeljnih načel, na katerih bo v bodoče temeljilo upravno poslovanje, ni mogoče uveljaviti kar čez noč. Gre za dolgotrajnejši proces. Pomembno je, da ta načela čimprej sprejmemmo, kot temeljno vodilo pri prenovi upravnih postopkov in razvoju elektronskih storitev, sicer utegnemo v nove rešitve vgraditi večino usedlin in neracionalnosti, ki so se nabrale v preteklosti.

4. Nova organizacijska paradigma pri nadalnjem razvoju uprave in njenih temeljnih informacijskih sistemov

Uvajanje e-uprave povsem spreminja odnos uprave in način komuniciranja z njenimi uporabniki, občani in organizacijami in daje njenemu poslanstvu nove poudarke. S tem se mora spremeniti njen v preteklosti prvenstveno oblastveno nadzorni ustroj v poudarjeno storitvenega, kar bo zahtevalo globoke spremembe v njenem notranjem bistvu in še posebno v njeni organizacijski kulturi. Sedanja hierarhična organizacija uprave, ki se je razvijala stoletja, je bila prvenstveno naravnana na izvajanje nadzora nad izvrševanjem predpisov. Poslovni procesi, ki se danes izvajajo v upravi, niso usmerjeni v izdelke in nudjenje kakovostnih, občanu prijaznih storitev. Poudarek je na izvajaju predpisov, pri čemer izdelek ali storitev nista bila ne jasno definirana, ne prav posebej pomembna. Sedanje prevladujoče delovanje javne uprave bi lahko parafrazirali z motom 'ni pomembno da nekaj tudi naredimo, pomembno je, da je to, kar naredimo, skladno s predpisi'. Jasno je, da je v upravi skladnost delovanja s predpisi zelo pomembna, vendar le-ta ne sme biti sama sebi namen.

Pri nas še vedno prevladuje izrazito 'praven' pogled na upravo. Res je, da je bila v kontinentalni Evropi upravna stroka tradicionalno, poudarjeno ukoreninjena v pravu, v nasprotju z anglosaksonskimi državami, kjer je uprava predvsem utemeljena v menedžmentu, ekonomiki ter sociološko-politoloških vedah. Vendar se ti pogledi povsod po Evropi in tudi v Nemčiji, kjer je bil sistem uprave najbolj zakorenjen v pravu, naglo spreminja, saj je tak pogled na upravo v precejšnji meri prispeval k njeni zbirokratiziranosti in neučinkovitosti. Skladno s tem 'pravnim' pogledom je uprava predvsem 'aparat' za izvajanje zakonov, upravo in njen delovanje lahko obvladujemo, nekoliko poenostavljeno povedano, predvsem s sistemom predpisov, posledično je večina upravnih reform osredotočena na pisanje novih zakonov.

V tem okviru ima tehnologija dela in s tem seveda tudi informacijska tehnologija zoglj vlogo sredstva za

dosego ciljev, torej vlogo neke vrste 'voznega parka', s katerim upravljajo servisne službe. Če je bil tak pogled na vlogo informacijske tehnologijo sprejemljiv v prvih desetletjih njenega uvajanja v delovanje javne uprave, pa danes, na začetku enaindvajsetega stoletja, gotovo ni več. Na sodobne upravne sisteme je potrebno gledati predvsem kot na velike in kompleksne poslovne sisteme, ki so v glavnih značilnostih podobni poslovnim sistemom velikih korporacij. Temu poslovnemu sistemu sicer zakonodaja postavlja robne pogoje delovanja, znotraj teh okvirov pa ga obvladujejo predvsem ekonomika, organizacija in informatika. Vsi reformni projekti na področju uprave v zahodni Evropi od devetdesetih let dalje gredo v glavnem v smeri izgradnje učinkovitejših poslovnih sistemov v upravi z uvajanjem elementov podjetništva, trga, z boljšim menedžmentom itd. Z veliko gotovostjo lahko zapišemo, da uvajanje e-uprave pomeni tudi začetek konca 'pravniške' uprave. Pravo, ki je bilo v preteklosti desetletja nad sistemom uprave in ga je v celoti obvladovalo, postaja končno zgolj njegov sestavni del. S tem bo sicer še kar nekaj težav.

Nakazane spremembe, ki bodo z uvajanjem e-uprave postale neizogibne, so neločljivo povezane s spremenjanjem temeljne organizacijske paradigm upravnih sistemov. V literaturi je vprašanje vpliva novih tehnologij na organizacijske spremembe dokaj pogosto obravnavana tema (Snellen; 2000), pri čemer pa sta se v preteklosti razvili dve nasprotujuči si tezi. Po prvi, ki je nastala že koncem osemdesetih let (Kraemer; 1988), tehnologija sama ne vpliva pomembnejše na razvoj organizacijskih struktur v upravi in ne more biti povod za pomembnejše reforme.

Po drugi pa postaja tehnologija pomemben dejavnik pri spremenjanju organizacijskih in institucionalnih struktur v upravi in tudi povod za upravne reforme (Frissen; 1998, Heeks; 1999). Resnici na ljubo, tudi naša lastna raziskava, ki smo jo izvedli v letih 2000-2001, še ne potrjuje dosledno te druge teze (Vintar in drugi, 2001), saj je pokazala, da je sedanje spremembe, ki so posledica tehnološkega razvoja uprave, čutiti predvsem na mikro ravni, to je na ravni posameznih delovnih mest in njihove neposredne okolice, ne pa še na višjih hierarhičnih ravneh. Ven dar zagotovo veliki organizacijski pretresi, ki so že zadeli številne druge velike sisteme in panoge, kot so bančništvo, zavarovalništvo itd., tudi uprave ne bodo obšli. Ocenujemo, da bodo v prihodnje kot posledica uvajanja e-uprave organizacijske spremembe morale iti v smereh, kot jih shematično predstavlja tabela 2.

Tudi sicer je v vseh sodobnih reformnih prizadevanjih, ki stremijo k povečevanju učinkovitosti javnega sektorja, v ospredju tako imenovana procesna orientacija. Tako kot v podjetjih, ki zaradi vse hujše konkurenco podrobno analizirajo in prenavljajo svoje poslovne procese ter tako znižujejo stroške svojih izdelkov, je potrebno tudi v upravi identificirati vse izdelke in storitve ter prenoviti in poenotiti pripadajoče procese in jih stroškovno ovrednotiti. Uvajanje e-uprave prav to procesno orientacijo izrazito podpira in hkrati tudi zahteva.

Pomemben zasuk pa bo potreben tudi pri nadaljnjem razvoju informacijskih sistemov v upravi. Leti so se v preteklosti razvijali izrazito enosmerno. Izhajali so predvsem iz notranjih informacijskih potreb

Kriteriji	Staro načelo	Novo načelo
Organiziranost uprave	formalna, hierarhična struktura, birokratska organizacija	dinamična mrežna struktura bolj avtonomnih organizacij
Funkcionalna organizacija	usmerjenost v izvajanje zakonov	prevladujoča procesna orientacija, usmerjenost v izvajanje procesov
Način izvajanja nadzora in vodenja, sprejemanja odločitev	od vrha navzdol	- decentralizacija - menedžerska načela upravljanja in vodenja
Odnos do javnosti	zaprt struktura, delovanje pod oznako "intern" in "zaupno"	preglednost, odprtost
Delitev pristojnosti	resorno in domicilno načelo	načelo maksimiranja razpoložljivih virov
Način ponudbe storitev	parcijalen, resoren	"vse na enem mestu"
Dostopnost upravnih storitev	dekonzentracija služb	načelo socialne pravičnosti (digital divide)
Poslanstvo	oblikovanje in izvajanje, zakonov	zadovoljevanje potreb občanov in organizacij, ponudba storitev
Ugotavljanje učinkovitosti in kakovosti dela	ugotavlja uprava sama	ugotavlja njeni uporabniki

Tabela 2: Smernice za preoblikovanje upravnih sistemov

same uprave in zagotavlja praviloma enosmeren pretok informacij od občanov in organizacij v številne interne baze podatkov, ki pa širši javnosti po večini niso bile dostopne. Spremembe v razmerju med upravo in uporabniki njenih storitev (občani in organizacijami), ki postaja vse bolj partnersko, uporabniki postajajo enakovredni subjekti, partnerji in uporabniki v informacijskih procesih, imeti morajo dostop do velike večine upravnih informacij, bo mogoče vpeljati samo z razvojem drugačnih, bolj odprtih, dvosmernih, informacijskih sistemov. Nekaj želenih značilnosti bodočih informacijskih sistemov povzema tabela 3.

Razmerje med e-upravo in projekti reforme javne uprave

Napovedi in ugotovitve, da bi bilo potrebno delovanje uprave organizirati na povsem novih načelih, niso nove. Že leta 1992 sta Osborne in Gaebler (1992) v svoji sloviti knjigi 'Reinventing Government: How the Entrepreneurial Spirit is transforming the Public Sector' definirala deset načel, na osnovi katerih bi morali na novo organizirati upravo in jo tako razbremeniti usedlin in balastov, ki so se nabirali v njenem ustroju desetletja druge polovice dvajsetega stoletja. Vendar, resnici na ljubo, omenjena avtorja v svojem delu še ne vidita informacijske tehnologije kot glavnega agenta sprememb in bodočih reform javnega sektorja. Medtem ko Heeks (1999) v knjigi 'Reinventing Government in the Information Age' povsem jasno izpostavi pomen informacijske tehnologije za vse bodoče reformne poizkuse javnega sektorja. Ugotovitve številnih strokovnjakov, da bo potrebno upravo izumiti na novo, če želimo izkoristiti potenciale, ki jih prinašajo nove tehnologije, segajo že v zgodnja devetdeseta leta in gledano z današnjimi očmi, niso povsem pretirane.

Bistvo e-uprave je, da radikalno spreminja način in mehanizme poslovanja uprave in s tem tudi osnovne principe, na katerih so se v preteklosti ti mehanizmi razvijali. Iz tega izhaja ključno vprašanje, v kakšnem

razmerju je razvoj e-uprave do drugih reformnih projektov, ki smo jim priča v upravah vseh razvitejših držav in tudi v Sloveniji. Ali lahko govorimo o razvoju e-uprave že kar kot o projektu reforme uprave? Je projekt e-uprave podrejen drugim reformnim projektom ali obratno itd? Zaenkrat se pri nas projekt e-uprave še vedno obravnava kot bolj samostojen projekt in ni dovolj povezan z drugimi projekti reforme uprave, kar je pomankljivost. To pri mnogih še vedno podpira prepričanje, da je razvoj e-uprave zgolj in predvsem tehnološki projekt in s tem odgovornost za njegovo uresničitev zgolj v resorjih, ki so pristojni za informatizacijo uprave, kar pa seveda še daleč ni res.

Zaključek

Projekt razvoja in uvajanje e-uprave je nedvomno v prvi vrsti usmerjen k občanom in organizacijam, kakovostnemu zadovoljevanju njihovih potreb, kar pa neizogibno zahteva sočasno notranjo modernizacijo in prenovo delovanja upravnih sistemov. Izhodišča, ki jih ima Slovenija ta hip za hiter razvoj e-uprave, so relativno dobra. Naša majhnost se v tem pogledu kaže kot velika prednost, s sistematičnim in angažiranim pristopom lahko na tem področju prehitimo marsikatero veliko večjo in razvitejšo državo znotraj EU. Hitrost napredovanja bo pa predvsem odvisna od domišljene in koordinirane delovanja na vseh že omenjenih področjih.

Vendar pa se je kljub ukrepom in projektom, ki že tečejo, batiti, da je sama vsebina in dimenzija fenomena e-uprave, problemov njenega uvajanja in odgovornosti za njihovo razreševanje, v našem okolju in še posebno v krogih, ki imajo najmočnejši vpliv (vrhovih ministrstev in uradov), še premalo jasna in preozko razumljena. To utegne upočasniti napreddek, vzbuja pa lahko tudi dvome v ustreznost nadaljnega delovanja na tem področju.

Do danes niti upravna niti informacijska stroka, kaj šele znanost, nista bili kaj dosti vključeni v postavljanje

Kriteriji	Staro načelo	Novo načelo
Namen IS	informacijske potrebe uprave	informacijske potrebe uprave in njenih uporabnikov
Zasnova	sektorska, parcialna	integralna
Vloga občanov in organizacij	vir informacij	vir in uporabnik informacij
Način posredovanja informacij	parcialne po resorjih	vse na enem mestu
Preverjanje podatkov	osebna navzočnost, lastnorocni podpis	na daljavo, digitalni podpis
Dokazovanje uradnih dejstev	stranka s pisnimi dokazili	organ ob uporabi javnih baz podatkov
Spremljanje stanj občanov	parcialno, resorno	enkrat za vselej in za vse primere

Tabela 3: Smernice za nadaljnji razvoj IS v upravi

temeljev bodoče e-uprave. Kar je bilo storjeno do zdaj, so bile bolj politične odločitve in ukrepi na strateški ravni, resnejše strokovne razprave o tem, kaj pomeni uvajanje e-uprave za sistem v celoti in ne nazadnje tudi za upravno teorijo in prakso, pa pri nas še ni bilo, torej nas to še čaka.

Uporabljeni viri:

E-Commerce, E-Business, E-Government, and the Internet, Proceedings of the Second International Leadership Issues Conference of the State Legislative Leaders Foundation (SLLF) / Europe, (2000), Ljubljana, September, 2000

Frissen, P.H.A. (1998).
Public Administration in Cyberspace. In: I.Th.M..

Snellen, W.B.H.J. van den Donk (Eds.):
Public Administration in an

Information Age. Amsterdam:
IOS Press, p. 33-46

Heeks, R. (1999)
Reinventing Government in the Information Age,
Routledge, New York, ISBN 0-415-19037-1

Kraemer, K. (1988).
Warum von der Technik getragene Verwaltungsreformen wahrscheinlich nicht zustandekommen werden.
In: H.Reinermann, H.Fiedler, K. Grimmer, K. Lenk, R. Traunmüller (Eds.): Neue Informationstechniken - Neue verwaltungstrukturen? Schriftenreihe Verwaltungsinformatik. Band 1. Heidelberg: R.v. Decker, p. 51-65.

Osborne, D. and Gaebler ,T. (1992)
Reinventing Government: How the Entrepreneurial Spirit is transforming the Public Sector, Reading, MA: Addison-Wesley

Reinermann, H. (2001).

Electronic Governance and Electronic Government:
Do politicians and the Internet need each other?,
Uporabna informatika, Letnik 9, Št. 1, stran 5-11

Snellen, I. (2000). Flache Hierarchien im Staatsaufbau:
Von der hochdifferenzierten Verwaltung zur zweistufigen Verwaltung? In: H. Reinermann (Ed.): Regieren und Verwalten im Informationszeitalter - Unterwegs zur virtuellen Verwaltung. Schriftenreihe Verwaltungsinformatik. Band 22. Heidelberg: R. v. Decker, p. 156-167.

Strategija uvajanja elektronskega poslovanja v upravi do leta 2004. Center Vlade za informatiko, 2001

Vintar, M. (1997)

Informatization as chance to redesign the processes in public administration: informatization rather than automatization,
In: New State, new millennium, new Public Administration (Davies, M., Brejc, M., Setnikar-Cankar, S., Vintar, M., ed.), University of Liverpool, University of Ljubljana, Ljubljana, ISBN 961-6139-14-2

Vintar, M. (1999)

Effective Approaches to Reform of the Government/Citizen Relationship,
In: Proceedings of the second NISPace Civil Forum: Openness and Transparency in Governance. Maastricht, stran 78-85

Vintar, M. in drugi (2001).

The influence of ICT on Organisation and Functioning of the Public Sector in Slovenia. Referat v okviru: Annual conference of European Group Of Public Administration, Vaasa, Finland, September, 2001

Wulff, M. (2001).

In Siebenmeilenstiefeln zum E-Government, Verwaltung-Organization-Personal, Št.11, 2001, stran 38-40

Prof.dr.Mirko Vintar se ukvarja z informatizacijo uprave že skoraj trideset let. Predava informatiko na Visoki upravni šoli v Ljubljani, kjer je tudi direktor Inštituta za informatizacijo uprave. Je član več mednarodnih združenj in odborov, med drugim član IFIP-ovega TC 13 ter upravnega odbora Evropskega združenja za javno upravo - EGPA. Je glavni in odgovorni urednik revije Uporabna informatika od začetka njenega izhajanja, to je od leta 1993.

SEVEN E-GOVERNMENT LEADERSHIP MILESTONES

Janet Caldow

Institute for Electronic Government, IBM Corporation

Abstract:

As electronic government comes of age around the world, leadership remains at the core of success, beginning with the definition of e-government itself. Leaders who define e-government in a narrow sense — simply moving services online — miss larger opportunities which will determine competitive advantage in the long run. By the end of the decade, what will constitute competitive advantage? A broader grasp of e-government is imperative for leaders to position their governments, citizens, businesses and communities for sustainable strategic advantage. Seven leadership milestones are integral to both becoming an e-government and running an e-government.

Izvleček

Ko se v svetu elektronska uprava razvija na stopnjo zrelosti, je njena uspešnost še vedno odvisna od vodenja, predvsem razumevanja, kaj e-uprava sploh je. Vodje, ki gledajo na e-upravo ozko – da se storitve prenesajo v spletno izvajanje – zamujajo pomembne priložnosti, ki bodo v dolgem roku odločale o konkurenčni prednosti uprave. Kakšna bo ta prednost čez deset let? E-upravo je treba razumeti širše, če naj vodje ustrezno opredelijo vloge vlade, državljanov, podjetij in skupnosti pri izvajanju prednostne strategije. Za oblikovanje e-uprave in njen poslovanje je nujnih sedem mejnikov vodenja.



As electronic government comes of age around the world, leadership remains at the core of success, beginning with the definition of e-government itself. Leaders who define e-government in a narrow sense — simply moving services online — miss larger opportunities which will determine competitive advantage in the long run. By the end of the decade, what will constitute competitive advantage? Certainly not renewing a license online. By then, online government services will be as commonplace as ATM machines are today. Online services will no longer be noteworthy, distinguishing one government from another, but will have become part of a baseline expectation of service delivery. Given that, governments today have no choice but to aggressively pursue an all-encompassing shift from traditional to online service delivery. To do otherwise places them in jeopardy of falling below minimally acceptable standards of service.

However, if online service delivery is only the ante to get into e-government, what then will set governments apart, elevating e-government as a competitive advantage? What are leaders to do? A broader grasp of e-government is imperative for leaders to position their governments, citizens, businesses and communities for sustainable strategic advantage. Seven leadership milestones are integral to both becoming an e-government and running an e-government. Achieving these milestones creates competitive advantage in both instances:

Milestone One:	Integration
Milestone Two:	Economic development
Milestone Three:	E-democracy
Milestone Four:	E-communities
Milestone Five:	Intergovernmental
Milestone Six:	Policy environment
Milestone Seven:	Next Generation Internet

The milestones are neither discrete nor sequential in nature. Each milestone has equal priority, contributing to the cumulative attainment of the others. Concurrent activity among the seven areas are required from the beginning. Collectively, these milestones require a common underlying management foundation and investment — strategy, collaboration, governance structures, financial investment, human resources, and partnerships. Without this leadership foundation, progress will be limited in overall impact and fragmented at best.

Milestone One: Integration

Process integration and technology integration mark achievement of Milestone One. Most governments have already recognized the fact that effective citizen services are delivered independently of organizational structure. Some call it one-stop shopping, one window, or a portal. This approach is designed to let citizens access services without having to know which department handles the service. Simply, instead of

a list of departments to click, citizens find a list of services to click. However, in the background, most services still have a one-to-one relationship with the department that offers it - reserve a tennis court, renew a realtor's license, pay a fine, file taxes.

The Texas Comptroller of Public Accounts office established the e-Texas Commission to find ways to reduce the number of touch points required to establish a business in Texas. They found to open a dry cleaning shop in Texas requires interaction with five state agencies - Department of Licensing and Regulation, the Texas Natural Resource Conservation Commission, the Comptroller of Public Accounts, the Texas Workforce Commission and the Texas Department of Transportation. Authorization from each department is required to do business in Texas. In addition, the dry cleaner must comply with regulations at the Federal level - Environmental Protection Agency, Department of Labor and Department of Transportation. A food retailer is subject to nine state regulatory agencies, seventeen different types of state licenses, and various statewide inspection processes.

Why is it so difficult to conduct simple business? This happens because cross-boundary operations, organizational structures, and information technology systems are not integrated. Integration is core to running either a business or a government in today's digital environment. E-business is a business model focusing on business relationships at the enterprise level powered by electronic interfaces among internal divisions, business partners, employees and customers. The combination of interfaces among individual legacy systems, enterprise level applications, and breakthrough Internet-based technologies for external customer and supplier use make e-business achievable, affordable, and mandatory for competitiveness. To achieve Milestone One, governments need to learn to use the Internet to run the government.

Commit to moving the bulk of services online within a challenging time frame. But, don't stop there. Demand that each functional area develop the discipline to look at interactions from a 'total customer experience' perspective. You'll soon discover a networked organization that should have work flow linkages with other departments and information technology systems.

Underneath process integration one must also have an integrated technical infrastructure. Your data center is likely professionally staffed, follows disciplined operating procedures around security, availability, reliability, scalability and performance standards. Web servers throughout your organization probably do not. Today's infrastructure is not up to the task of the tremendous growth that's coming soon — ten times the number of people connected to the

Internet; 100 times the current network speed; 1000 times the number of connected devices; and a million times the data. Calculate those numbers just for your jurisdiction. Can your technical infrastructure handle it? Not only do your databases and applications need to talk to each other, now the engines that drive them - the PCs, web servers, LANs, networks have to attain a new level of standards.

Today, most e-businesses are planning 99.9999% availability. That means systems are guaranteed to be up and handle the load 99.9999% all the time. When e-government comes of age, you cannot afford to have 90% availability. That's the equivalent of closing all your government offices a half day per week during normal business hours. What's more, in the e-government world, the workweek isn't 40 hours anymore. It's 168 hours -- 24 hours a day, seven days a week. Surveys show most e-government services are accessed between the hours of 8:00 PM and 2:00 AM. Your data center may be open and staffed all night, but the web masters from the recreation or licensing department are probably home in bed asleep. E-government is a complete mindset change about how you run things.

Within the next 5 years, bandwidth will increase 150 times. When high speed access is commonplace the "Internet" won't be to blame for slow response or crashes because of seasonal peaks, uneven traffic, and increasing demand. All the stress will be transferred to your servers and your network. Now, think about the portal and all those transaction services pushed out to separate web sites, and the technical challenges become clear. The more agencies and servers involved, the less reliability you'll have if they are not part of a disciplined management structure. If just one server goes down in any one of the agencies at any step along the process, you can't complete that business permit application. It shouldn't be left up to the guy in the cubicle running today's web server. Hackers can find their way to any individual agency web server hosting a web site. Each web server needs to be integrated into the same standard IT operating procedures that you expect from the IT shop for security, availability, reliability and performance.

Expect to invest significant funding for integration. Hardware, software, security, scalability, reliability, skilled personnel, integration of process and technical infrastructure — that's what it takes to run an e-government. You can't get there with today's environment built for a physical government. We spent decades establishing processes and procedures to operate physical governments. Now we are shifting to a brand new paradigm. The good news is that the savings, rewards, and returns far outstrip the investment required.

Milestone Two: Economic Development

On the road to e-government, Digital Age economic development generally has five dimensions — leveraging small and medium-sized businesses, education, attracting high tech industry, access to technology infrastructure, and a business-friendly government.

Economic development used to focus on attracting a few large corporations to build plants and bring jobs to a jurisdiction. Although still a building block, the tide has turned toward small and medium-sized businesses - the fastest growing economic sector worldwide. Jurisdictions may have from hundreds to potentially tens of thousands of small businesses within their boundaries. If each one has the opportunity to grow into a "clicks and mortar" enterprise, and adds just one new job per year, the result is overall healthy economic growth.

What do these small businesses need and how can government leaders help? To transform into e-business, small and medium sized companies need affordable expertise and technology - web development, e-commerce applications, hosting, and high-speed Internet access. Individually, small companies have little bargaining power. But together, through organized aggregation of demand, negotiated affordable packages for these capabilities can become a reality - perhaps a citywide or statewide services contract for small businesses. Governments, in collaboration or working through private and nonprofit sectors can facilitate such bargaining power.

Helping small and medium sized companies become e-businesses is one thing. Establishing brand recognition is quite another. In the economic shift to e-business, small and medium businesses are losing customers to big, heavily-advertised Internet brands. Search engines are still primitive and frustrating. Chances are the local resident will go directly to a known Internet brand instead of searching for local e-businesses. When an out-of-state online transaction occurs, lost sales taxes are only one part of the problem. Those companies are also not paying state income taxes or business license fees. They don't employ your resident citizens. Their employees aren't shopping at your local malls. There is a lot of economic growth (or loss thereof) associated with an online purchase. The solution is not simply changing sales tax laws. It's helping businesses get online and then getting them connected with your citizens. One way to do this is building upon Milestone One - integrate from your citizens' perspectives. Provide easy citizen access from the government portal to reach local businesses. Feature a "small e-business of the week" on the website. Have a robust enough portal, and these small businesses will enjoy not only brand awareness of residents, but will enjoy access to new customers

and business partners outside the jurisdiction. This effectively bridges "local" to "global" for business development and economic growth.

Building a competitive workforce to fill newly created jobs is the companion strategy to leveraging small businesses and attracting industry. People no longer have to work where they live. A digital workforce is emerging where jobs can be filled anywhere in the world. The dramatic and growing shortage of skills affects every country, every state, every city. Jobs displaced in the digital economy are being replaced with new Internet-related jobs at much higher pay. Education, of course, is key and why it has become a number one priority of government leaders everywhere. An education system that produces a competitive workforce is undeniably core to economic growth. For example, governments are rethinking degree program caps to encourage more science, math, engineering, and technology graduates.

Governments also need strategies to attract new knowledge workers and high-tech businesses into their jurisdictions. The Commonwealth of Virginia has been particularly successful in attracting and growing a high-tech industry base. Today, nearly 50% of the world's Internet traffic flows through Northern Virginia. The area is home to America Online and thousands of other high-tech companies. Fortune magazine referred to Virginia's "netplex as a dense pattern of interaction and partnering among firms in a highly dynamic telecommunications industry, a rapidly emerging Internet industry and what is probably the most highly developed concentration of systems engineering capabilities in the world."

Leadership for this strategy has spanned nearly two decades and several governors' administrations. In 1984, the Center for Innovative Technology was established as a nonprofit organization designed to enhance the research and development capability of the state's major research universities. By 1998 Virginia businesses had created 9864 new jobs, 354 new companies and \$1.9B in competitiveness. Virginia has become a hot spot of technology because of its relentless focus on developing the workforce, creating the infrastructure, maintaining an entrepreneurial climate, and deploying technology. In 1997, the governor issued an executive order creating the nation's first Secretary of Technology, responsible for coordinating public sector information technology resources while also working with Virginia's fast growing information technology private sector. In 1999, the state's Internet Policy Act was signed into law, becoming a model for other states.

By 2003, Virginia is expected to have nearly 423,000 technology workers, earning \$26.4 billion. Leadership is clearly working in Virginia.

Milestone Three: E-Democracy

No e-government vision is complete without attention to digital democracy. The spectrum of democratic process ranges from voter registration, voting, public opinion polling, communication among elected representatives and their constituencies, universal access to technology, wired legislative bodies, and legislative processes that encourage greater citizen participation. Online hearings, submitting expert testimony online, opinion polling and open communication and information provide opportunities for real-time participation throughout the democratic process - not simply disseminating information after the fact. There's a big difference.

From John Locke to Thomas Jefferson, the foundation of democracy is an informed and engaged citizenry. Governments receive high marks for making information accessible online. But, much more needs to be done. Improved two-way communication between constituents and representatives and better ways for citizens to engage in legislative process are part of becoming an e-government.

Legislative bodies are beginning to understand how technology can transform themselves as members gather to debate and vote in floor sessions. In most cases, the predominant use of any technology inside legislative bodies is limited to electronic systems to tabulate floor votes. Even then, output from these aging systems many times must be manually entered into other systems for reporting purposes and then translated into a different format for posting to websites. New technologies allow legislators - during formal sessions - to communicate silently with staff back in their offices, conduct real-time research on issues on the Internet, negotiate terms with members of their own or opposing parties while debate continues. Wisconsin and other governments have begun to outfit all legislators with laptop computers.

Components of the electoral process - campaigning, communication with constituents and the media, coordination of volunteers, solicitation and collection of campaign contributions, voter registration and voting — are also facets of the e-democracy milestone. The collection and counting of votes is only one part of the challenge. Many times, changes made to traditional voter registration systems (such as address changes) are not processed in time for election day. Redundant voter data may exist in several locations within a state (if voter moves). These are straightforward database design and integration issues, relatively easy and inexpensive to correct. Many jurisdictions also overlook the importance of human interface design. This step is critical whether the interface is between a voter and a paper ballot, a machine, or a computer screen.

Milestone Four: E-Communities

Government is intrinsic to community in fundamental ways. Public safety, public health, parks and recreation, elderly and youth services are tangible examples. But, government is also integral to the very basic quality of life including equal opportunity, education, diversity, and even seasonal celebrations. Who doesn't appreciate the community camaraderie of a "Fall Festival" and its social importance? Any commitment to e-government should extend to enriching the communities government serves. People are not just citizens of a government. They are parents, families, volunteers, neighbors, consumers, students, sports enthusiasts, senior citizens, children, and members of religious and social institutions - forming communities of interest within a geographic community. Together they weave the rich tapestry of geo-community, the cornerstone of society. The definition of community at the local government level is different from a state, provincial or national community, but each has important sociological implications. Regardless of government level, facilitating e-communities is a strategic ingredient of e-government.

Internet technologies offer unparalleled opportunities for government to enhance communities. Once the e-government technology infrastructure is in place to offer online services through a website portal, the marginal cost of adding additional components becomes very small.

In February, 1999, the Government of Canada announced a nationwide Smart Communities initiative. Sixty million dollars over three years are earmarked for one Smart Community demonstration project in each province, one in the North, and one in an Aboriginal community. These projects are designed to pilot how information and communication technologies can be harnessed by communities across Canada to support economic development and to enrich community life for Canadians.

Since 1992, Naestved, Denmark has launched an impressive series of integrated e-community initiatives — spanning government, private, and commercial interests — to would attract investment, bring the information society one step closer to reality, and plug into the heart of the emerging digital economy. Beginning in 1992, with a new mayor and a new vision, an e-community groundwork was laid with an intranet. A Lotus Notes platform (collaboration software) for employees citywide was installed in 1994. In 1995, CityNet was created — a joint venture with Naestved, Cable TV, TeleDenmark — which provided cheap, high-speed Internet access to any household or business within city limits. In 1996, NaestvedNet (a semi-private company owned by the regional newspaper, telecompany and municipality) drove the creation

of the NaestvedNet Business Council to stimulate growth of local businesses. The Business Council offering education, technical support, and affordable web services for small and medium businesses to get online. In 1997, the city website (www.naeskom.dk) was designed to provide self-services. "New Pathway" centers were established to serve the physically impaired, senior citizens and the unemployed. PCs were installed in all libraries and youth data centers opened. In 1999, Naestved was approved as an EU pilot — Open Digital Administration — to implement digital signatures using Tivoli public key infrastructure giving citizens secure access to case processing applications, including intelligent forms (data automatically filled in). In 2000, Naestved created interactive virtual classrooms using Learning Village technology offering distance learning to technical, trade and business schools in surrounding cities. With sustained leadership over nearly a decade, Naestved has become a model e-government.

Access or "digital divide" issues are paramount issues for government leaders. The digital divide has many facets. There are geographical, income, social, age, language, and gender aspects to the digital divide. Governments need to understand the manifestations and implications of each within their particular jurisdictions and take corrective measures.

Infrastructure is perhaps the single most important overall e-community enabler for residents, businesses, healthcare facilities and educational institutions to thrive in a digital economy and society. Like their small business counterparts, individual rural communities with small populations have little bargaining power with high-speed providers. Governments are exploring ways to facilitate aggregation of demand by region to attract providers. Canada's Alberta Province has embarked on a SuperNet project, a public/private partnership to extend high-speed access to the far corners of the province — part of a larger community and economic development strategy.

Milestone Five: Intergovernmental

The intergovernmental phenomenon is just beginning and is a core ingredient of e-government. As boundaries of all sorts blur, those between and among governments are perhaps the fuzziest. Physical world problems of disease, insects, global warming, terrorism, and pollution know no boundaries. Couple that with technology that knows no boundaries and the effect on governance is profound.

At the global level, quasi-governmental bodies are emerging to pool knowledge and resources to combat global problems. Within countries, there are growing needs to integrate national, state/provincial and local

government operations, services and technologies. Citizens and businesses need to interact with all levels of government. Therefore, any robust e-government agenda must address intergovernmental linkages.

Now is the time to launch the first pilots and begin meaningful intergovernmental deliberations around common processes and services. Within numerous states in the United States, such dialogue has already begun in the form of intergovernmental committees that meet to identify e-government opportunities, and address issues, infrastructure and integration. Some states offer city services on their websites. Others help the citizen or business navigate to the right place through personalization techniques such as zip code identifiers. Intergovernmental topics are on the conference agendas of nearly every national association.

Milestone Six: Policy Environment

Creating the legal framework is another pillar of e-government success. Old laws have to change. New laws are needed. And perhaps, more importantly, legislative restraint is sometimes the best course of action in these still-early stages of a global networked economy. Members of oversight bodies need education and guidance on Internet-related policy issues. A flurry of fundamental issues, including taxation, digital signatures, authentication, privacy, the digital divide, international trade, consumer protection, intellectual property rights, and telecommunications deregulation have appeared on the legislative agenda of virtually every country, state/province and local governing body. Yet, a 1996 study commissioned by IBM's Institute for Electronic Government and conducted by the Strategic Computing and Telecommunications in the Public Sector program at Harvard's John F. Kennedy School of Government found that fewer than seven percent of legislators felt personally knowledgeable to consider such decisions. Although this figure has likely improved since 1996, it remains a challenge and, in many cases, a barrier to progress.

National associations, public/private institutions, public policy organizations, and think tanks have become core resources studying and advising lawmakers on policy issues. One successful model is the public-private United States Internet Council (USIC) initiative. Funded by the private sector, the nonprofit USIC not only educates elected officials, but forms a network of legislators among the fifty U.S. states to share model legislation and best practices. Specific committees and caucuses were established in state legislatures to be the center of gravity for all Internet related bills. Technology is no longer subjugated as an afterthought to a standing committee whose main purpose and member expertise is in some other domain.

The USIC also bridges state legislatures with the United States Congress for intergovernmental coordination of Internet-related legislation.

Milestone Seven: Next Generation Internet

Milestone Seven is the capstone of a competitive e-government strategy. It not only depends on progress toward other milestones, it's the one that will set governments apart in the future. Keep an eye on the horizon. If you define e-government in today's environment, your government will never be a leader. High-speed connectivity is opening wide the doors to the next generation Internet. Imagine a billion people connected to the Internet - all by dozens of devices and video as ubiquitous as the fax is today. Satellites and wireless interconnecting everyone and everything.

In this new environment, imagine a road crew in the field linked by video conference - on the screen of a handheld wireless device - both with the supervisor back in the government office and the contractor two states away. By streaming live video of the construction site, and sharing engineering drawings, on-the-spot design changes can be made. Citizens will no longer just click on a form. They'll click an icon and a live government service representative will appear on the screen to help. That's the future of e-government.

Today, 95% of people view the Web through their PC browsers. That will drop to 40% in five years. Japan is the first country to have broken through that barrier. By March, 2000, more than 50% of Internet access in Japan was through devices other than the PC. Pagers, TVs, personal data assistants, and phones are now browsers.

It took roughly 15 years to increase bandwidth 10 times. Within the next 5 years, bandwidth will increase 150 times. The quality of video over the Internet will increase commensurately. Content management and distribution will be forever changed. When video over the Internet is as common as email and as crisp as TV reception is today, a major shift in applications will occur. Nearly every agency of the City of Vancouver already has an impressive archive of video stored on their website - even pets up for adoption at the animal shelter! From our studio in Washington, DC, the Institute for Electronic Government website features an array of video talk shows, speakers and panels at national conferences, and mini-series on a variety of e-government topics.

Pervasive and mobile computing are game-changing developments. Computer scientists see it approaching a kind of mathematical extreme in which Internet-connected, microscopic chips will literally

disappear into all the things around us. The signs are already here. Today, the electronics of a car cost more than the mechanical parts. And its growing.

Historically, at least 30% of government workforces have always been "mobile," even before high tech — police, fire fighters, parole officers, traffic enforcement, health inspectors, building inspectors, transportation inspectors, fire inspectors, facilities management employees, fleet management personnel, internal mail carriers, social services case workers, transportation officials, parks & recreation employees, maintenance employees, and the list goes on. These employees, by the very nature of their job responsibilities, are immediate candidates for wireless. Throw in another 25% of office workers who are projected to become mobile and that's almost 50% of all governments' workforces! Governments need to extend their infrastructures so that wireless devices can interact with existing backend, mission-critical systems.

A wireless workforce strategy covers a variety of government-to-employee (G2E) applications sharing common core technologies. All these employees have similar requirements in their jobs - both mobile and/or wireless. Their needs range from messaging (email), Internet connectivity, mobile incident or status reporting that can be uploaded or transmitted, query of backend databases, alerts, personalized workflow management, updates, scheduling, dispatch, and access to their respective mission-critical applications.

Wireless allows employees to be mobile while still having the ability to access core applications. This frees them of the constraint of only having critical information while they are sitting at their desks. Mobile employees can get to information when and where they need it the most with levels of security directly proportionate to the nature of the transaction.

The value in transforming field services employees into a mobile, wireless workforce includes exceptional improvements in productivity, effectiveness and efficiencies, reduced costs, decreased paperwork, auditability, elimination of redundant data entry, reduced cycle times, secure information available immediately - anywhere, anytime - improved employee safety, accelerated report preparation, and simplified review and approval workflow processes.

The New York State Division of Parole is already there. Using a small handheld device, parole officers can soon take pertinent information with them out into the field, and process information remotely. The information is accessible to the officers when and where they need it most, delivered in a way that is safe and convenient. Their hands are free. If you are a parole office, that's important. And, there is no laptop to lug around.

Human interactions, that have largely been missing from technology, will start to emerge. E-meetings, in which people communicate and share information through real-time video connections on the Internet, are a good example. E-meetings are becoming more and more frequent where employees can interact live, face-to-face with colleagues from around the world, and even share content — documents, spreadsheets, web-pages — in real time, while still honoring the very real need for security and privacy.

Conclusion

These seven milestones will deliver e-government. But, make no mistake. It will take nothing less than enormous leadership effort. Consider the Commonwealth of Virginia and Naestved examples. Their successes resulted from sustained leadership over a decade, spanning different political party administrations, and substantial financial investments. Based upon the returns and rewards they are reaping today, it was a very small price to pay. Be wary of shortcuts and detours. New entrants into the public sector marketplace will come and go over the long run. While trendy quick-fixes may be enticing, nothing replaces taking the future into your own hands with steadfast

determination and specific goals. How fast you progress toward e-government is directly proportionate to funding. Solid business cases can be made for that investment. And, finding the right partner is critical. Governments face an almost insurmountable resource gap. Even the private sector faces a critical worldwide shortage of skilled resources. To expect to affordably "own" the skilled resources needed to meet the coming challenges is unrealistic. In addition, governments cannot effectively keep pace with technological change and meet those challenges alone. Therefore, solid technology partners are essential — those who can best help navigate unknown challenges ahead.

These are exciting times. With a little foresight, an aggressive approach toward each milestone, the right partner — and maybe a little luck — e-government is within grasp.

References:

Clift, Steven, www.e-democracy.org

"Smart Communities: Report of the National Selection Committee," Industry Canada, 2000
<http://smartcommunities.ic.gc.ca>

"E-govt: The Next American Revolution," Jan. 2001, Council for Excellence in Government, www.excelgov.org.

Ms. Caldow is Director of IBM's Institute for Electronic Government (www.ieg.ibm.com). Located in Washington, DC, the Institute is a global leadership resource in governance, economic development, citizen services, technology, education, and healthcare for the digital society. Ms. Caldow directs a robust research agenda with renowned academic and practitioner partners. In the Center's cybercast studio, she oversees a variety of TV programs delivered over the Web. Formerly the Director of Strategic Management for the County of Fairfax, Virginia, her innovations in government won national recognition at Harvard's Kennedy School of Government. Ms. Caldow serves on the Harvard Policy Group, the Congressional Management Foundation's Expert Panel on Congress Online, the Advisory Board for the Global Development Gateway, The World Bank, and Governor Gilmore's e-Communities Task Force. An author, researcher, frequent speaker and Lacrosse mom, she holds an MBA, and a BA in sociology. Ms. Caldow resides in Vienna, Virginia, and Nantucket, Massachusetts.

THE CHANGING LANDSCAPE OF THE U.S. FEDERAL GOVERNMENT: ELECTRONIC DELIVERY OF INFORMATION AND SERVICES

Patricia Diamond Fletcher

Abstract

This paper will examine the current condition of electronic government (e-gov) in the U.S. Federal government. A brief examination of the legislative framework for e-gov will be presented. The current major initiatives at the Federal level of government will be examined with an emphasis on the nascent creation of best practices in electronic government.

Izvleček

V članku obravnavamo sedanje stanje v elektronski upravi ameriške federalne vlade. Predstavljamo kratek pregled zakonodaje, ki se nanaša na e-upravo. Opisujemo tudi pomembnejše spodbude na federalni ravni s poudarkom na porajajoče se uveljavljanje učinkovitejših postopkov v elektronski upravi.



The Legislative Framework for Electronic Government in the United States

The United States Federal government is the largest information collector, creator, disseminator, and repository in the world. This underscores the classic comment made by Harlan Cleveland (1986) that in essence "government is information." The importance of information and information management to the Federal government has been recognized by many scholars, authenticated in their research (Dawes, et al, 1999; Fletcher, et al, 1993; Fletcher and Westerback, 2000; Hernon, et al, 1997; Sprehe, 1987). The value of information to government has recently skyrocketed, however, as government becomes "electronic" and government information and services, ubiquitous.

A complete review of all relevant Federal policy is beyond the bounds of this paper. A number of such comprehensive papers already exist, and for the purposes of this paper, only the critical recent legislation will be noted. As indicated above, the U.S. Federal government has a lengthy and rich history of legislative attention to government information and personal information freedoms and this focus on information policies continues into the present. The onset of computers and information technology, and the Internet as a mass communication media, has only increased the focus on and the importance of an informed and concentrated policy approach to information. Information creation, maintenance, access, disposal, security, and privacy frame and guide the information policy arena today.

Paperwork Reduction Act of 1995

The Paperwork Reduction Act of 1995 (PRA) (Public Law 104-13) is a lengthy and wide-ranging law, first enacted in 1980. It was revised in 1986 with some changes, and then had a major revision in 1995. The PRA was enacted to reduce the paperwork burden on private citizens and businesses that interact with the government. It emphasizes the effective and efficient use of IT to achieve paperwork reduction. The second goal of the PRA is to create a government information management structure that recognizes the value of information to government and manages it in a strategic manner, consistent with Federal agency missions and goals. In its latest version, attention is given to the management and use of all forms of records and information, paper and electronic, to computer security, information privacy and information access, systems standards, and agency wide and government wide strategic information planning. The Office of Management and Budget guidance to Federal agencies for compliance with the PRA is given in OMB Circular A-130.

Government Paperwork Elimination Act of 1998

The Government Paperwork Elimination Act of 1998 (P.L. 105-277, Title XVII) was authorized with a minimum of attention and fuss, yet it has the potential to be one of the most influential pieces of legislation pertaining to the management and use of information

technology—and to the creation of an electronic government. Once it is fully implemented, GPEA promises to create government processes that are more externally focused and citizen and business-centric. It sets up the conditions for a process and performance oriented Federal government. With the passing of GPEA, there is a formal recognition that government is and will continue to develop its electronic information presence.

The Clinger-Cohen Act of 1996.

Division D of the Department of Defense authorization is titled the Information Management and Technology Reform Act of 1996, later renamed Clinger-Cohen after the bill's congressional supporters. Clinger-Cohen makes specific the development of information technology acquisition and investment practices and creates a top-level focus on Federal agency information management through the requirement for a Chief Information Officer, which is a direct report to the agency head. This act was supplemented by Executive Order 13011, Federal Information Technology Management. E.O. 13011 served to bolster the CIO structure with the creation of a Federal CIO Council, charged with creating cross-agency information platforms, maximizing the return and the reach of information technology across the Federal government. As will be mentioned later in this paper, the CIO Council has taken on a key role in creating and enabling electronic government processes.

Privacy Act of 1974

The Privacy Act of 1974 (88 Stat. 1896; 5 U.S.C.552a) was enacted by Congress to legislatively protect personally identifiable information created and maintained by Federal agencies. It created the right of an individual U.S. citizen, or lawfully alien, to access personal information about him or herself that is in most Federal government records. There are exclusions to this Act for information that is deemed sensitive or critical to U.S. national security. The Privacy Act also affirms the principles for fair information practices, principles generally accepted in the United States and Europe for access to, disclosure of, and accuracy of personally identifiable information.

Freedom of Information Act of 1966

The Freedom of Information Act (80 Stat. 250; 5 U.S.C. 552) was enacted by Congress in 1966 to create a more effective process for the public to obtain access to Federal government records. The latest amendment to this act occurred in 1996 with the major modifications

being the Electronic Freedom of Information Act that affirmed the applicability of the Act to records in all formats and media, including electronic. Federal agencies are required under the Act to disclose records requested in writing by any person. Federal agencies may withhold information if it falls within one of the nine exemptions and three exclusions contained in the statute. This Act applies only to federal agencies and does not create a right of access to records held by Congress, the courts, or by state or local government agencies.

The Computer Security Act of 1987.

The Computer Security Act (101 Stat. 1724) requires that Federal agencies develop comprehensive security plans for all systems that contain sensitive information. It further states that the National Institute of Standards and Technology in the Department of Commerce, set the security standards to be applied to all systems containing such sensitive information, excepting systems that contain national security information, intelligence, crypto logic or military information which are to be kept secret for purposes of national defense and national policy.

These are the major legislative tools, which relate to electronic government at U.S. Federal agencies. At a minimum, they set up the requirements for information access, use, maintenance, security and privacy. Other policy tools, such as the Computer Matching and Privacy Protection Act of 1988, Presidential Decision Directive 63 on Critical Infrastructure Protection, the Children's Online Privacy Protection Act of 1998, and the Office of Management and Budget Memo on Federal Web Site Privacy (June 2, 1999) flesh out some of the thorny issues which arise when using computer technology and the Internet to provide basic government information and services. This is a challenging area in the United States, where the tension to balance the "right to information privacy" with the "right to access information" continues to do battle.

A Look at the Internet

A recent report from the U.S. Department of Commerce notes that the digital economy is no longer emerging in the United States—it is here. This report states that in 1994 three million people used the Internet; in 2000 that number is three hundred million. The report further notes that there are more than one billion web pages on the Internet and that approximately three million new web pages are added daily. One survey reports (Domain names, 2001) that there are currently 36,148,625 domains registered across the ".com", ".net", ".org", and ".gov" sites.

This rapid diffusion of both a new technology and a new social model is very evident in the United States of America where we have seen the Internet become the fastest growing electronic technology in world history. In the U.S., after electricity became widely available, 46 years passed before 30 percent of American homes were wired for electrical service. It took the Internet only seven years to have a household reach of 30 percent (Pew Charitable Trusts, 2001).

A series of reports issued by the Department of Commerce show a continuing diffusion of computer and Internet technology throughout the U.S., be it via business access, access in schools and libraries, or personal access at home (2000). The most recent report notes that:

- The share of households with Internet access soared by 58%, rising from 26.2% in December 1998 to 41.5% in August 2000.
- More than half of all households (51.0%) have computers, up from 42.1% in December 1998.
- There were 116.5 million Americans online at some location in August 2000, 31.9 million more than there were only 20 months earlier.
- The share of individuals using the Internet rose by 35.8%, from 32.7% in December 1998 to 44.4% in August 2000. If growth continues at that rate, more than half of all Americans will be using the Internet by the middle of 2001.

<http://www.ntia.doc.gov/ntiahome/digitaldivide/execsumftn00.htm>

One of the first large-scale surveys of citizen participation in electronic government exchanges was conducted by the Momentum Research Group of Cunningham Communications (July 26, 2000). They found that 65 percent of adults had conducted at least one electronic transaction with a government agency. When asked about some of the more citizen-to-government routine transactions, 47 percent of the respondents expressed an interest in renewing their driver's licenses over the Internet; 38 percent wanted the option to vote over the Internet for major elections; and 36 percent wanted to be able to have the option of conducting all interactions with government (at any level) electronically. An interesting and unexpected finding of this survey was that 71 percent of citizens who use the Internet were willing to pay a convenience fee for the ability to transact with the government over the Internet.

While immensely exciting in its potential, this widespread diffusion of the Internet creates new vulnerabilities and policy issues. Concerns for information privacy have skyrocketed in the past decade. Vulnerabilities in networked information systems have given rise to sharp examinations of computer

security and the protection of critical infrastructure. The ongoing role of the government to make its information available to its citizens has been stretched and challenged with the advent of the Internet. Access is more than posting to a web site—indexing and retrieval challenges are yet to be resolved satisfactorily. And there is continuing evidence of a "digital divide" in the United States; the existence of a group of computer/information "haves" and a group of "have nots" which is in need of policy intervention. The 2000 report on the digital divide pointed out that while some progress had been made in closing the gap, there are still some groups where the divide has not been lessened, and in some cases, increased. (Department of Commerce, 2000). There continue to be inequities based on race and ethnicity, as well as for Americans with disabilities.

What emerges from this brief overview of Internet use in the United States is that of a country that is rapidly depending on computer and Internet technology for a range of business and personal uses. There are not only economies of scale to be reaped by business use of the Internet, there are personal and social benefits that are reflected in the rapid growth in home use of the Internet. In the U.S. we have a quickly diffusing set of network technologies and corresponding changes in business and social practices. This creates an environment that is more than ready for a robust electronic government.

Government's Evolving Response

Information technology has long been regarded as a "big ticket" item in federal government. IT accounts for an annual obligation of approximately \$38 billion—not a trivial amount (GAO/T-OCG-00-9, 2000). Thus, it is an expenditure that has come under close scrutiny, with a repeated litany from Congress calling on the Federal agencies to maximize the value proposition, increase productivity, and provide enhanced levels of service and information dissemination to the public with their information technology infrastructures.

The role of government in creating and maintaining an informed citizenry is potentially enhanced with the emergence of electronic government. A clear strategy and vision of how to achieve these goals for information and service delivery has not yet been well articulated. What we are seeing at this time is an ad hoc response to the development of new information technologies, most notably network technology, and the expectation of more "customer-oriented" focus by its citizens. This focus on "customers" or citizens, has been nurtured by the private sector's success in its rapid creation of electronic commerce applications. This has led to the development and widespread use

of a 24/7 business model; a model that lets customers interface with companies any time, any day of the week, anywhere; in both physical and virtual space. This business model also includes a creation of value for customers that is information-based: infinitely customizable service and products. The use of persistent "cookies" and other information collection practices give businesses a wealth of information on consumer behavior and preferences. The collection of these data on e-commerce web sites enables to business turn this information into the ultimate in customer service, individually focused, always available. While this appears to be a useful model for the private sector, it may not be in the best interest of the citizenry. While Americans are demanding a very high and ubiquitous level of service from all organizations, government must tread much more lightly in engaging in some of these Web-enabled information practices. As noted earlier in this paper, the U.S. citizen has an inherent belief in the right to information privacy. There is also the concern for the protection of their personally identifiable information from malicious use, theft, and alteration. There are also concerns about what is inherently governmental, and what should be off-loaded to the private sector to enhance the national economy.

The above noted challenges and opportunities have created a unique opportunity for government to change its interface with the citizenry. And at the Federal level, there have already been numerous instances of electronic delivery of services, information, and the enabling of business transactions, e.g., online licensing, online tax payments, online compensation systems and electronic transfer of benefits. The U.S. Federal CIO Council reported that in the year 2000 there were more than 1200 electronic initiatives underway in the Federal government. Two of these initiatives will be reported on in this paper. Funding from the National Science Foundation's Digital Government program supported a recent study of characteristics of electronic government partnerships and outcomes. This multi-national study examined e-gov projects at all levels of U.S. government, as well as projects in Canada, Belgium, Germany and Brazil. The author conducted case study research at two Federal agencies and a brief summary of the finding is presented.

FirstGov

FirstGov was launched in September of 2000 and it is the only official U.S. government Web portal and is described as a single, trusted point-of-service for U.S. citizens and businesses to gain entry to federal services and information resources. If successful, this portal will provide a seamless entry to the estimated fifty to

one hundred million federal agency web pages currently on the Internet. It will centralize the procurement process for doing business with the Federal government. It will centralize the federal grant application and grant award process. The concept of a Federal portal was first mentioned on June 24, 2000 when U.S. President Bill Clinton made the first Internet address to the nation. He announced a bold initiative for the U.S. federal government; the deployment of firstgov.gov, a government-wide portal to be operational in "ninety days or less." The portal was up and running by its deadline in September of 2000.

FirstGov is a unique example of a public-private partnership among the U.S. General Services Administration, the Federal CIO Council, National Partnership for Reinventing Government, the Government Information Technology Services Board, private sector information industry companies, and the FedSearch Foundation, which, donated the use of their search engine to this project for a period of two years. This attention from the Executive Office of the President was one of the critical success factors which enabled the portal to be "open for business" in such a short period of time.

Other significant and critical variables for the project's success included the Presidential Memo of December 17, 1999: Electronic Government; the passage of the Government Paperwork Elimination Act of 1998 (P.L. No. 105-277); and the 90 day time frame given to launch the portal. These factors created the top level support, the legislative framework, and the sense of commitment and urgency to have a successful launch date.

Today, FirstGov provides informational and transactional government-to-citizen, government-to-business and government-to-government electronic services. It covers all three branches of government; executive, judicial and legislative. Its vision, "Our work transcends the traditional boundaries of government and our vision is global – connecting the world to all U.S. Government information and services" is being carried on with the addition of state and local web pages along with some pages from foreign governments to its vast directory of government information. The portal also creates and maintains a number of content-specific portals geared to special audience needs, such as students.gov, seniors.gov, workers.gov, science.gov, and consumers.gov. These specialty portals are consistent with the topic or needs-oriented approach to government that FirstGov represents.

The future for this government wide portal looks good at this time. The website has won numerous awards and has strong visibility and usage. It is included in the President's 2002 budget so, in the short term, it will continue to have the wherewithal to operate.

The Internal Revenue Service's eFile

The desire to connect the taxpaying public to an easy, fast, and paperless tax return process has long been a goal of Congress and the Internal Revenue Service (IRS). The eFile, a cooperative venture among the IRS, the public, certified public accountants, taxpayer software vendors, and other tax professionals, is one of the more public and wide-ranging instantiations of the desire to reduce the tax process burden to all parties. The vision for eFile is "To revolutionize how taxpayers transact and communicate with the IRS." The program does this in a variety of ways, using the Internet, computer software and telephone technologies as interaction and filing media.

Factors that were critical to the development and the success of this project include the:

- IRS Commissioner Charles Rossotti,
- Strong leadership of the Electronic Tax Administration Director,
- Strategic planning focus of the agency,
- Citizen access priority,
- IRS Restructuring and Reform Act (RRA) of 1998
 - Promotion of electronic filing (sec. 2001c)
 - Forms availability via Internet (sec. 2003d),
- Government Paperwork Elimination Act,
- Ability to stimulate "out-of-the-box" thinking,
- Tax expertise of partners,
- Direct marketing campaign of eFile to the general public,
- Electronic Tax Administration Advisory Commission, and
- Internet technology.

According to a June, 2000 ETAAC report to Congress:

The website itself, www.irs.gov, has achieved a remarkable visibility in a short period of time. Data from the Internal Revenue Services indicates that there were more than 1.5 billion hits to the website from January through April 16, 2001, which represents a 57 percent increase in usage from the same time period in 2000. The visitors to the website averaged eleven minutes per visit, with most of them going to the page for electronic tax filing. The number of documents and forms that were downloaded from the web site was 103 million for January and February 2001; a two-fold increase from the same time period in 2000.

The IRS also experienced a large growth in electronic filing in 2000, with a 20.5 percent increase in e-filed returns over the preceding year. Other aspects of the electronic filing program also demonstrated improved service and information delivery improvement in 2000.

A goal of the Tax Restructuring and Reform Act of 1998 was for the IRS to achieve 100 percent electronic

filing of all returns prepared on computer by both tax payers and tax professionals alike by 2003. While progress is being made, the 2000 Annual Report to Congress by the ETAAC believes that much work remains to be done to if the IRS is to be successful in even approaching this goal (<http://www.cerca.org/reports/etaac00.pdf>). The ETAAC report also noted that they were doubtful of the ability of the IRS to achieve its 2007 goal of 80 percent electronic filing of all tax returns. But this does not deter the IRS from seeing this as a successful venture to date, with multiple public-private partnerships being established to continue to diffuse this process through the tax filing and tax preparation customers.

Looking Ahead

The above section makes note of just a few Internet-enabled examples of electronic government that are already being used in the Federal government. A strong momentum exists to achieve even greater electronic interaction between the government and its public. The Budget Blueprint of President George W. Bush has a heartening focus on the continuation of developing and using the Internet to create a Federal government that is "citizen-centric." Under the "Government Reform" section of the President's plan, are goals to use information technology to decrease the excessive hierarchy and red tape inherent in governmental processes, create a citizen-centric government over the Internet, and to develop an e-government fund to insure that these goals are met.

In October of 2001 the Office of Management and Budget released the report of the "Quicksilver" Task Force on electronic government initiatives. These initiatives are to receive special attention and support in the coming eighteen to twenty-four months. The task force is a government wide inter-agency group composed of 70 leaders from 30 Federal agencies convened in the summer of 2001 to explore cross-cutting electronic government programs. The list of their 23 projects was developed to enhance and facilitate electronic services at multiple government agencies. They were also created with an eye to focus the e-gov efforts in four critical segments: government to citizen, government to business, government to government, and internal effectiveness and efficiency. These projects also have a direct correspondence to President Bush's management agenda, a strategy to move to a customer-centric government.

Some examples of approved projects include the:

Education Department's Electronic Student Loan for online filing (government-to-citizen),

Justice Department's Wireless Network project (government-to-government),

Department of Transportation's Online Rule-making Management system (government-to-business), and Office of Personnel Management's e-Training, Recruitment One Stop and Enterprise Human Resource Integration including e-travel (effectiveness and efficiency).

The Federal government's Chief Information Officer Council also reflects a strong emphasis on electronic government. Their 2002 Strategic Plan (www.cio.gov) has a vision to create a "better government through better use of information, people, processes and technology." To this end their first strategic goal is focused on connecting citizens to their government through an e-government strategy to improve access to government information and services, and to improve the quality of government information and services using the Internet. One of the objectives under this goal is to continue with the development of FirstGov, making it a seamless tool for citizens and business to use that will cut across all government branches (executive, judicial, and legislative) and all government levels (Federal, state, and local). The CIO Council is also in the process of reorganizing its structure to better facilitate their commitment to an electronic government, which will be vital and coherent across all Federal agencies.

These examples show the commitment of the U.S. Federal government to create electronic service provision, information delivery, and transaction capabilities to all segments of their public. What is missing however, is a unified strategy to give this a coherent and rational face. The proliferation of a plethora of e-gov projects without adequate strategic guidance can create more system redundancy and confusion over how to find information and services, rather than streamline such processes.

Conclusion

This paper has examined the policy framework for an electronic government in the United States of America. It has also presented some of the current and pending e-gov initiatives that are underway at the Federal level of government. While much progress has been made, there are many challenges remaining to the success of such a government model. Information issues such as privacy, security, access, and dissemination remain critical. The policy framework will continue to be glossed to accommodate the Constitutional rights of citizens while maintaining adequate informational and physical security of government information systems. The lack of a government wide electronic government strategy is also in need of attention. The Federal government suffers from an

abundance of redundant, expensive, old information platforms, developed to meet very parochial and stovepipe needs of agencies. These systems are characterized by their inability to cross inter and intra-organizational boundaries, thus limiting their effectiveness, range and reach. These systems were created without any articulation of a Federal agency strategic information plan, let alone a government wide strategic information plan. The U.S. has the opportunity to redress this now, if it can develop and sustain a government wide strategic approach to electronic information and service delivery.

A slow and steady development of the electronic government infrastructure, however, is probably still a good practice to a government that is accountable to a tax-paying electorate. While the excitement and revolutionary outcomes of electronic commerce have a certain mass appeal, citizens want their government to be reasoned and accountable in the conduct of its business. The sheer size of the U.S. government, coupled with its being the largest creator of information in the world, also serves to slow down the creation of an electronic government.

A final and important issue here is that in the United States, we have been a nation where government touches us most where we live, in towns and villages, in major metropolitan areas, counties, school districts, libraries, forest preserves, public highways, and the like. Do we really want a government that is primarily accessible via the electronic means? While the ideal of one-stop-24 hour, seven day a week-government is enticing, it will be important to sustain the community aspect of our democratic society.

Horton, 1979; McDonough, 1988; Sprehe, 1987

Bibliography

Cleveland, H.

"Government is Information (But Not Vice Versa)," *Public Administration Review*, 46 (1986): 605-607.

Daley, W.M.

Digital Economy 2000, Office of Policy Development; U.S. Department of Commerce Economics and Statistics Administration: Washington, DC, 2000: 1-71.

Dawes, S.S., Bloniarz, P.A., Kelly, K.L., and Fletcher, P.D. (March, 1999).

Some Assembly Required: Building a Digital Government for the 21st Century. Albany, NY : Center for Technology in Government.

Domain Names.

<http://www.domainstats.com/> (accessed on the World Wide Web, November 1, 2001).

Falling through the Net:

Toward digital inclusion. U.S. Department of Commerce Economics and Statistics Administration. National Telecommunications and Information Administration
<http://www.ntia.doc.gov/ntiahome/fttn00/contents00.html>
(accessed on the World Wide Web, November 5, 2001).

Fletcher, P.T., Bretschneider, S. I., Marchand, D.A. (1992) Managing Information Technology: Transforming County Governments in the 1990s. Syracuse, NY : Syracuse University.

Fletcher, P.D., and Westerback, L. (1999). Federal Information Policy: Management to Measurement. The Journal of the American Society for Information Science, Special Issue on the National Information Infrastructure. 50(4). pp. 299-304.

Hernon, P; McClure, C.R.; and Relyea, H.C., Eds. (1996). Federal Information Policies in the 1990s: Views and Perspectives. Ablex Publishing Corporation: Norwood, New Jersey.

The Momentum Group. Benchmarking the eGovernment Revolution: Year 2000 Report on Citizens and Business Demand; July 26, 2000.
<http://www.egovernmentreport.com>
(accessed on the World Wide Web, July 28, 2000).

The Pew Charitable Trusts. Society and the Internet.

<http://www.pewtrusts.com/ideas/index.cfm?issue=10>
(accessed on the World Wide Web, November 5, 2001)

"President Clinton Launches FirstGov: A Single Easy-to-Use Website for Government Services and Information".
http://whitehouse.gov/WH/html/Fri_Sep_22_124445_2000.html (accessed on the World Wide Web, September 22, 2000).

Relyea, Harold C. (May 7, 2001). Electronic Government: A Conceptual Overview. Washington, DC: Congressional Research Service.

Remarks by the President in the First Internet Webcast; June 24, 2000.
<http://www.whitehouse.gov/WH/new/html/internet2000-02-24-text.html> (accessed on the World Wide Web October 10, 2000).

Sprehe, J. T. (1987). Developing Federal Information Resources Management Policy: Issues and Impact for Information Managers," Information Management Review, Vol. 2, pp. 33-41.

Webcast of November 15, 2000 CIO Council Meeting.
<http://www.cio.gov/text/whatsnew.htm>
(accessed on the World Wide Web, November 20, 2000).

Patricia Diamond Fletcher is associate professor in the Department of Information Systems, UMBC, University of Maryland, Baltimore County. She has published extensively in the area of government information policy and electronic government. She is currently studying new models of multi-partner collaboration for electronic government projects, a multi-national project funded by the National Science Foundation under the direction of the Center for Technology in Government. Fletcher is on sabbatical leave from UMBC to conduct research at the US General Accounting Office for the 2001 academic year. She is working with the IT Policy Team and involved in studies initiated by Congress on information privacy and security act compliance and an evaluation of the effectiveness of the Paperwork Reduction Act of 1995 in Federal agencies. Fletcher received her MLS and PhD from the School of Information Studies at Syracuse University.

IZVAJANJE STRATEGIJE E-POSLOVANJA V JAVNI UPRAVI REPUBLIKE SLOVENIJE ZA OBDOBJE OD LETA 2001 DO LETA 2004

Marin Silič

Izvleček

Strategija e-poslovanja v javni upravi RS za obdobje od leta 2001 do leta 2004, ki jo je pripravil Center Vlade RS za informatiko v sodelovanju z drugimi državnimi organi RS in zunanjimi strokovnjaki, je osnova za prehod javne uprave v informacijsko družbo v naslednjih štirih letih. Zasnova in uresničitev sistema e-poslovanja v javni upravi odpira veliko vprašanj v zvezi z dostopom do informacij in storitev javne uprave in njenim notranjim poslovanjem. Premislek nas vodi k spoznaju, da je nujno treba izvesti prenovo delovanja javne uprave (organizacijo, kadre, upravne postopke, dokumente) in na ta način povečati učinkovitost in kakovost delovanja celotne javne uprave. Z normativnimi, organizacijskimi in vodstvenimi ukrepi je treba povečati učinkovitost delovanja javne uprave, kar bo temeljna podlaga učinkovitemu in pospešenemu izvajjanju e-poslovanja in razvoja e-uprave.

Abstract

Strategy of e-commerce in Slovenian public administration in the period from the year 2001 to the year 2004 prepared by the Government Centre for informatics in cooperation with other government bodies and independent experts represents the basis for the transition of the public administration into information society in the next four years. Design and implementation of e-commerce system in public administration have opened many questions relating the public information and services access and internal operations of the public administration. Reflection on this subject leads to the conclusion that it is inevitable to restructure the public administration (organization, human resources, administrative procedures, documents) and in this way increase efficiency and quality of public administration functioning. Furthermore efficiency should be further increased with normative, organizational and managerial measures and thus foundation should be laid for efficient and accelerated implementation of e-commerce and development of e-government.



1. UVOD

Strategija elektronskega poslovanja (SEP-2004), ki jo je pripravil Center Vlade RS za informatiko (v nadaljevanju: CVI) v sodelovanju z drugimi državnimi organi in zunanjimi strokovnjaki, je osnovni dokument za vsa prizadevanja, projekte, aktivnosti in naloge pri prehodu javne uprave v informacijsko družbo v naslednjih štirih letih s poudarkom na uvedbi elektronskega poslovanja kot temeljni značilnosti informacijske družbe.

Slovenska uprava, ki bo v celoti prešla na e-poslovanje, bo bistveno bolje pripravljena na izzive polноправnega članstva v Evropski uniji in NATO. Zato je predlagana strategija e-poslovanja v javni upravi prevzela vse osnovne usmeritve Evropske unije, opredeljene v Zeleni knjigi in predlogu novih direktiv za liberalizacijo telekomunikacijske infrastrukture in storitev. Prevzeta je bila tudi regulativa na področju elektronskega podpisa, kot tudi smernice za varnejši internet.

SEP-2004 je pomemben dokument z informacijskega in institucionalnega vidika. Vključuje postavitev

in prenovo globalnih okvirov razvoja, delovanja, povezovanja in odpiranja vseh informacijskih sistemov javne uprave Republike Slovenije. V strategiji so prikazani tudi bolj konkretni pristopi in modeli arhitektur vseh pomembnejših »resornih« informacijskih sistemov javne uprave RS. Strategija je pomembna tako za državne organe in organe lokalne samouprave kakor tudi za privatni sektor. Upošteva večino slovenskih, evropskih in svetovnih strateških dokumentov ter splošne smernice uvajanja e-poslovanja, hkrati pa vključuje vse omejitve in specifičnosti javne uprave RS.

Globalni cilj javne uprave Republike Slovenije do leta 2004 je podpora skupnim funkcijam javne uprave in ključnim delovnim področjem javne uprave za e-poslovanje, to je enotno opremljanje delovnih mest, povezavo administrativnih registrov, uvedbo aplikacij za skupne funkcije uprave po ključnih delovnih področjih uprave, ustrezno spodbujanje, izobraževanje ter usposabljanje vseh udeležencev elektronskega poslovanja.

Pri določanju usmeritev in ciljev uvajanja e-poslovanja v javno upravo je treba upoštevati naslednje pomembne vidike: večjo decentralizacijo upravnih sistemov in enakomernejši regionalni razvoj ter boljše spremljanje in nadzor nad odločtvami v upravnih postopkih in nadzor nad izvajanjem vseh upravnih postopkov v celoti. Z uvedbo elektronskega poslovanja v javno upravo želi država:

- zagotoviti enostaven, hiter, kakovosten in poceni dostop do informacij in storitev javne uprave s pomočjo sodobne informacijsko telekomunikacijske tehnologije (ITKT) ali storitve javne uprave približati državljanom,
- omogočiti informacije in storitve na takšen način, da državljanom v postopkih ne bo potrebno priskrbeti podatkov, ki so jih v neki življenski situaciji že podali, in da ne bodo omejeni krajevno, tako da bodo lahko storitev opravili kjerkoli v Sloveniji,
- skrajšati čase storitve javne uprave,
- omogočiti dostop do vseh javnih podatkov in do tistih, ki bodo dostopni le pooblaščenim osebam ali osebam, na katere se nanašajo,
- racionalizirati poslovanje javne uprave, doseči kakovostnejše sodelovanje med javno upravo in uporabniki, zagotoviti enakomernejši in hitrejši razvoj na regionalni in lokalni ravni,
- vzpodobujati vse vidike elektronskega poslovanja in možnosti dostopa do informacij in storitev javne uprave ter s tem višati splošni življenski standard,
- odpreti informacijske vire javne uprave RS tudi v svetovna omrežja,
- omogočiti večji pregled nad notranjim delovanjem javne uprave,
- pospešiti prehod Slovenije v informacijsko družbo in
- vzpostaviti elektronsko demokracijo.

Država si je skladno z zgoraj naštetimi usmeritvami zastavila nekatere cilje, ki jih bo uresničevala s projektmi, aktivnostmi in nalogami. Cilji so naslednji:

- vzpostaviti organe za skrbništvo strategije ter za realizacijo in nadzor projektov, ki izvirajo iz strategije,
- evidentirati in natančneje opisati vse postopke in procese znotraj javne uprave in pripraviti študije informatizacije ter s tem zagotoviti enotnost izvajanja postopkov,
- na vseh lokacijah javne uprave vzpostaviti komunikacijsko omrežje v okviru sprejetega standarda ter omrežja povezati med seboj,
- povezati vse sedanje in bodoče informacijske sisteme, administrativne registre in druge zbirke podatkov javne uprave med seboj, tako zaradi notranjih potreb povezovanja kot zaradi enotnosti in prijaznosti javne uprave navzven,
- določiti standarde, postopke in sisteme arhiviranja papirnih in elektronskih dokumentov, ki bodo upoštevali najugodnejše razmerje med obstojnostjo, varnostjo in hitrostjo dostopa do dokumentov,
- vzpostaviti mehanizme varnosti za identifikacijo in preverjanje pristnosti državljanov v postopkih javne uprave,
- uvesti pravila varovanja osebnih podatkov v postopkih in storitvah javne uprave, ki bodo upoštevala Zakon o varstvu osebnih podatkov in delitev uporabnikov na delavce javne uprave, pravne osebe in fizične osebe,
- vzpostaviti enoten državni portal in podportale za vsa delovna področja javne uprave, ki bodo dostopni državljanom preko interneta, delavcem javne uprave pa preko intraneta ali ekstraneta, in bodo nudili različne storitve in informacije javne uprave,
- omogočiti plačila davkov, upravnih taks, kazni in drugih terjatev iz opravljenih upravnih storitev,
- organizirati izobraževanje za delavce javne uprave in za državljanje o uporabi novih, prijaznejših storitev javne uprave.

Realno je pričakovati probleme pri uvajanju e-poslovanja v javni upravi, zato je za izpolnitev vseh pogojev za uresničitev strategije pomembno, da vse institucije (Svet za informacijsko družbo /SID/, Komisija Vlade RS za informatiko za področje javne uprave, Ministrstvo za informacijsko družbo, CVI in resorne službe za informatiko idr.), ki imajo opravka z informatizacijo javne uprave v RS, aktivno in tvorno sodelujejo v uresničevanju strategije.

Ob tem pa nikakor ne smemo pozabiti na pristojnosti Ministrstva za notranje zadeve, ki mora odigrati ključno vlogo pri prenovi javne uprave. Le prenovljena javna uprava, katere poslovanje bo slonelo na poenostavljenih, poenotenih in verificiranih postopkih, bo trdna podlaga za uspešno in učinkovito e-upravo.

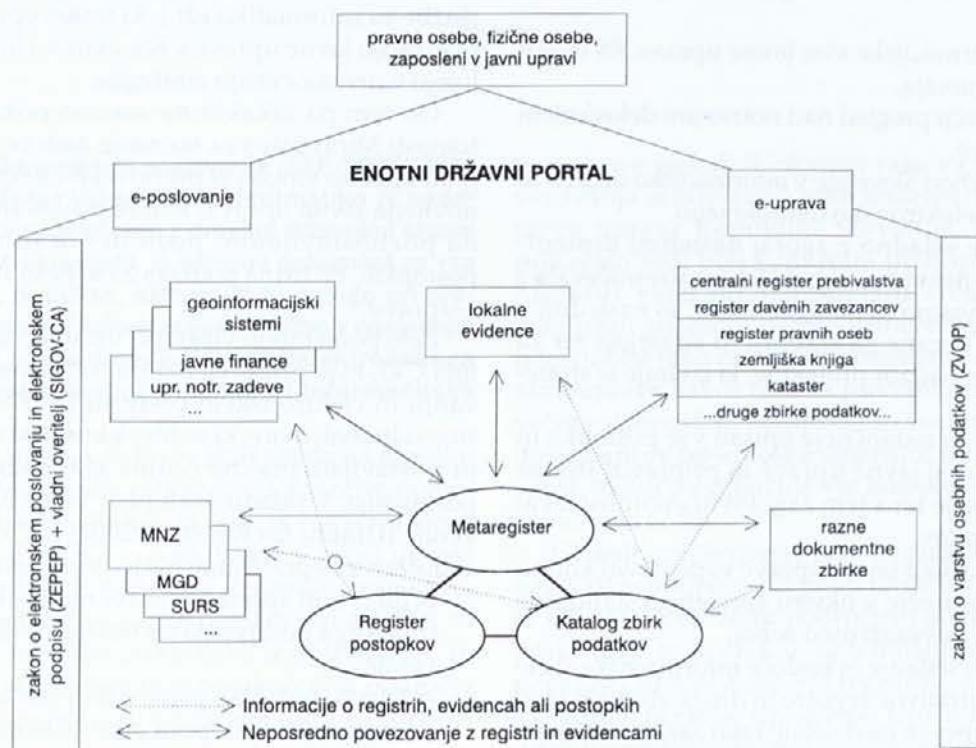
Zelo pomembno vlogo pri uresničevanju strategije ima CVI, ki je pripravil Zakon o elektronskem poslovanju in elektronskem podpisu (ZEPEP), s katerim smo odpravili ovire, ki so jih elektronskemu poslovanju postavljale pravne norme klasičnega papirnega poslovanja. V skladu s sklepom Vlade Republike Slovenije (Uradni list RS, št. 12/2001) je CVI pristojen in zadolžen za opravljanje naslednjih nalog:

1. pripravo in spremljanje izvajanja strategije elektronskega poslovanja javne uprave Republike Slovenije;
2. izdelavo strateških planov skupnih funkcij uprave (informacijska podpora pisarniškemu poslovanju, zakonodajnemu postopku, spremeljanju dela vlade in ministrstev, kadrovskemu sistemu, sistemom za

- odločanje, odnosom z javnostmi ipd.), uvajanje skupne ITKT in prenove poslovanja ter informatizacije posameznih organov;
3. spremljanje, izdelavo, skrbništvo, uvajanje in svetovanje na področjih: metodološke osnove planiranja, razvoj informacijskih sistemov ter vodenja, spremljanje in kakovost informacijskih projektov, standardi informacijsko-telekomunikacijske tehnologije;
 4. pripravo, izdelavo in realizacijo usklajenega skupnega letnega načrta informatizacije (nabav informacijske opreme in storitev);
 5. organiziranje in izvajanje skupnih nabav, distribucije in vzdrževanja skupne informacijske opreme, kot tudi poenotena in pomoči uporabnikom lokalne informacijske opreme organov;
 6. izdajanje mnenj o nabavah informacijske opreme in storitev posameznih organov v skladu s predpisi, ki urejajo pripravo in sprejem enotnih tehno-loških zahtev, smernic in priporočil za informacijske sisteme v državnih organih;
 7. planiranje, razvoj, uvajanje in svetovanje na področju aplikativne opreme za skupne funkcije ter po dogovoru za specialne funkcije organov, kot tudi na področju tehno-loškega povezovanja skupnih administrativnih registrov in aplikativne opreme posameznih upravnih informacijskih sistemov;
 8. razvoj in delovanje centralne strežniške infrastrukture ter skupnega telekomunikacijskega omrežja in telekomunikacijskih storitev;
 9. spodbujanje razvoja in delovanja overitelja;
 10. izdelava politike, vzpostavitev, spremljanje in nadzor sistema zaščite in varovanja;
 11. strokovno svetovanje in usposabljanje na področju planiranja in razvoja informacijskih sistemov, vodenja projektov, spremljanja in zagotavljanja kakovosti ter same uporabe izdelanih informacijskih rešitev in standardnih orodij;
 12. pospeševanje informatike v upravi in zunaj nje ter sodelovanje z domačimi in tujimi institucijami s tega področja pri skupnih projektih in drugod.

Mesto vladne službe CVI je ključno v projektih e-uprave. Enotni državni portal, enotna vstopna točka javne uprave, bo zagotavljal javnosti dostop do storitev (upravnih, izobraževalnih, storitve za podporo skupnosti in izboljšanja kvalitete življenja in storitve, ki se nanašajo na e-demokracijo) in informacij javne uprave. Do njega lahko dostopamo preko brskalnika, mobilnega telefona, interaktivne televizije ipd. Deluje 24 ur na dan vsak dan na enostaven in prijazen, pa tudi varen način.

Dejstvo je, da uvajanje e-poslovanja in osnova za učinkovito delovanje sistema podpore uporabnikom zahteva usklajeno delovanje in enotne pristope na



Slika 1: Enotni državni portal

vseh področij ITKT. Z novimi tehnologijami in sistemi bomo lahko premagovali ovire, ki bodo nastale pri prenovi poslovnih procesov in oblikovanju strategij. Zato je zelo pomembno zasnovati sistem e-poslovanja v javni upravi, ki bo v podporo vsem funkcijam. Pri tem je pomembno, da bo sistem usmerjen v izboljševanje procesov pri izvajanjju storitev in bo čim bolj prilagojen zahtevam uporabnikov.

2. ELEKTRONSKO POSLOVANJE V JAVNI UPRAVI

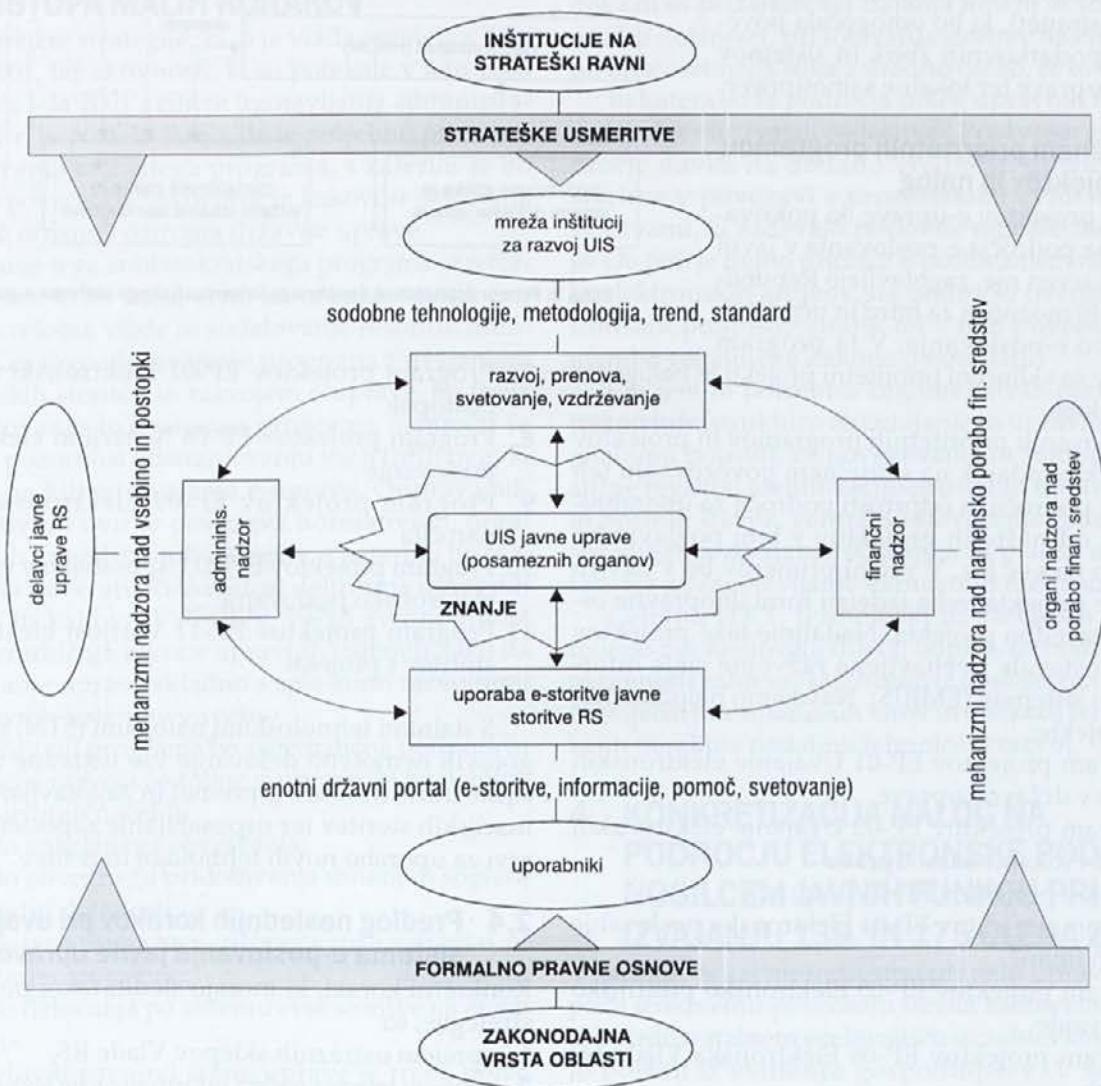
2.1 Zasnova sistema

e-poslovanja v javni upravi RS

Ponovno je treba premisliti celotno delovanje javne uprave (organizacijo, kadre, upravne postopke, dokumente). Odpirajo se tudi vprašanja v zvezi s spre-

membami delovnih področij po resorjih, pa tudi regionalne razporeditve. Zasnovno celotnega sistema e-poslovanja v javni upravi prikazuje slika 2:

Mreža institucij za razvoj upravnega informacijskega sistema (UIS) skrbi za načrtovanje, razvoj in integracijo aplikacij v UIS ter za obdelavo, povezovanje, posredovanje in arhiviranje podatkov. Pri razvoju, prenovi, svetovanju in vzdrževanju morajo te institucije upoštevati sodobne tehnologije, metodologije, trende in standarde, ki so določeni s sprejetimi strateškimi usmeritvami. Zaposleni v javni upravi z mehanizmi nadzora nad vsebino in postopki izvajajo administrativni nadzor ter skrbijo za nemoten potek izvajanja postopkov in ažurne informacije. Pomembno vlogo v sistemu imajo tudi organi nadzora nad porabo finančnih sredstev, ki nadzorujejo namensko porabo finančnih sredstev pri vključevanju novih tehnologij in kasnejšem e-poslovanju.



Slika 2: Zasnova sistema e-poslovanja v javni upravi RS

Vsi elementi sistema e-poslovanja morajo upoštevati strateške usmeritve in formalno - pravne osnove.

2.2 Predlog arhitekture sodobnega IS kot dela sistema e-poslovanja v javni upravi RS

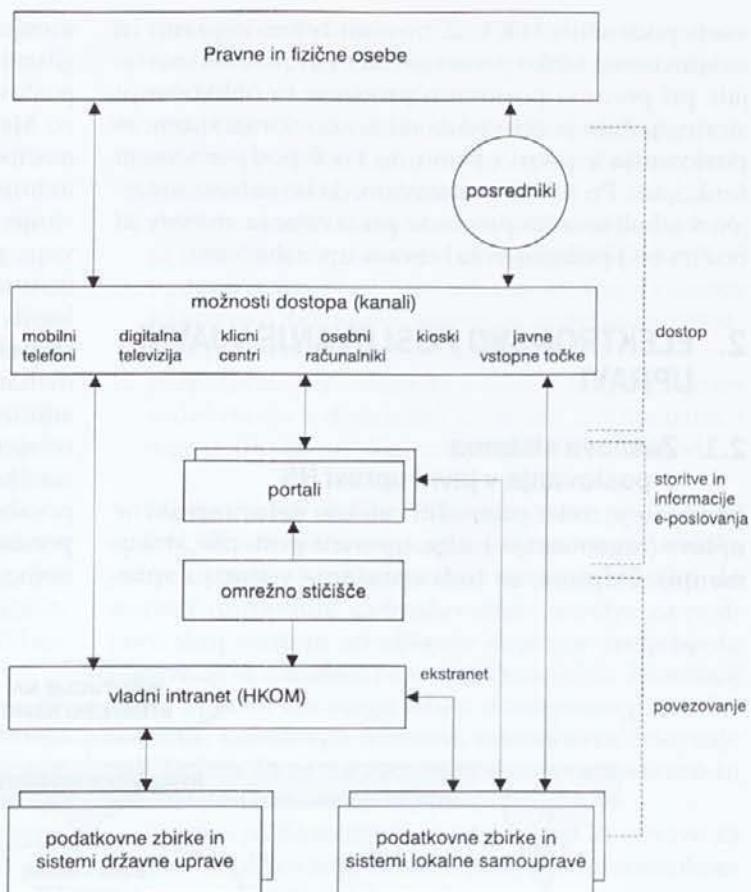
Kot smo uvodoma dejali, strategija predvideva, da bodo storitve in informacije javne uprave dostopne preko enotnega državnega portala in podportalov z različnimi tehnologijami, tudi z mobilnimi telefoni, digitalno televizijo, s klicnimi centri in kioski. Pri dostopu bodo uporabnikom v pomoč »posredniki«, ki bodo od pravnih in fizičnih oseb pridobili ustrezna pooblastila. Vzpostavitev enotnega državnega portala in podportalov zahteva primerno komunikacijsko infrastrukturo (omrežno stičišče, vladni intranet in ekstranet), ki bo omogočala povezovanje podatkovnih zbirk in sistemov državne uprave ter lokalne samouprave.

2.3 Seznam prioritetnih programov, projektov in nalog

Program projektov e-uprave, ki pokriva različna področja e-poslovanja v javni upravi in izven nje, zagotavlja Republiki Sloveniji možnosti za hitro in učinkovito uvedbo e-poslovanja. V ta program projektov so vključeni prioritetni projekti in naloge ter stalne naloge.

Pri snovanju prioritetnih programov in projektov je bil velik poudarek na smiselnem povezovanju teh delovnih področij in odprtosti področij za uporabnike. Vsak od naštetih projektov v tem poglavju bo razdeljen na več faz. V večini primerov bo v okviru prve faze projekta treba izdelati formalnopravne osnove za izvedbo projekta. Nadaljnje faze projektov bodo upoštevale uveljavljene razvojne cikle informacijskih sistemov (EMRIS). Navajamo najpomembnejše projekte:

1. Program projektov EP-01 Uvajanje elektronskih storitev državne uprave
2. Program projektov EP-02 Uvajanje elektronskih storitev lokalne samouprave
3. Program projektov EP-03 E-uprava
4. Program projektov EP-04 Elektronsko poslovanje javnih finanč
5. Program projektov EP-05 Elektronsko pisarniško poslovanje
6. Program projektov EP-06 Elektronska Vlada (e-Vlada)



Slika 3: Primer arhitekture sodobnega informacijskega sistema e-poslovanja

7. Program projektov EP-07 Elektronski upravni postopek
8. Program projektov EP-08 Notarji in elektronsko poslovanje
9. Program projektov EP-09 Elektronska javna naročila
10. Program projektov EP-10 Usposabljanje uprave za elektronsko poslovanje
11. Program projektov EP-11 Varnost elektronskih storitev s projekti

S stalnimi tehnološkimi nalogami (STN) bomo zagotovili nemoteno delovanje vse ustrezne informacijske infrastrukture (opreme) in zagotavljanje informacijskih storitev ter usposabljanje zaposlenih v upravi za uporabo novih tehnologij in rešitev.

2.4 Predlog naslednjih korakov pri uvajanju sistema e-poslovanja javne uprave RS

Konkretni koraki, ki morajo slediti takoj po izdelavi strategije, so:

1. sprejem ustreznih sklepov Vlade RS,
2. sprejem letnega načrta informatizacije javne uprave,

3. hitra in celovita uveljavitev Zakona o elektronskem poslovanju in elektronskem podpisu ter Uredbe o pogojih za elektronsko poslovanje in elektronsko podpisovanje,
4. ustrezna prilagoditev vse zakonodaje s področja slovenske uprave,
5. čimprejšnja ustanovitev predlaganih institucij informatike v slovenski upravi,
6. analiza resorcev slovenske uprave, ki so prioritetni za e-poslovanje uprave.

Pri izvajanjiju naslednjih korakov bo osrednjega pomena Programsko - projektna pisarna, ki bo s svojimi organizacijskimi in metodološkimi izhodišči ter z informacijsko podporo omogočala preglednost planiranja in izvajanja programov ter projektov.

3. NUJNOST CELOVITE REFORME JAVNE UPRAVE IN NUJNOST HKRATNEGA PRISTOPA MALIH KORAKOV

V luči sprejete strategije, ki jo je vlada sprejela v februarju 2001, ter aktivnosti, ki so potekale v letu 2000 in začetku leta 2001 s ciljem ugotavljanja administrativnih ovir, je postalo jasno, da je potrebno pristopiti k oblikovanju celovitega programa, s katerim se bo bistveno povečala učinkovitost in kakovost delovanja upravnih organov oziroma državne uprave.

Izvajanje tega antibirokratskega programa je reformen proces, ki bo trajal vrsto let in zahteva odločno podporo celotne vlade in sodelovanje resornih ministrstev. Ker sovpada izvajanje programa z uvajanjem elektronskih storitev in razvojem e-uprave, bo treba pri oblikovanju in izvajaju programu nameniti še posebno pozornost odstranjevanju vseh tistih ovir, ki vplivajo na hitrost uvajanja e-uprave. Odprava administrativnih ovir je povezava normativnih, organizacijskih in vodstvenih ukrepov, s katerimi bo vlada skušala povečati učinkovitost delovanja upravnih organov in kakovost storitev, večjo avtonomnost nižjih hierarhičnih ravn v upravnih sistemih, tako da bo delovanje uprave skladno s splošnimi razvojnimi cilji upravnih sistemov v svetu.

Temeljni cilj programa bo sistematična podpora in omogočanje razvoja sodobne e-uprave, ki bo delovala po naslednjih načelih:

1. Načelo enkratnega obveščanja;
2. Načelo obveznega pridobivanja mnenj in soglasij po uradni dolžnosti;
3. Načelo poslovanja brez osebnega stika s stranko, če to ni nujno potrebno;
4. Načelo delovanja po sistemu »vse storitve na enem mestu«.

Ob celoviti prenovi javne uprave je treba poleg sistematičnega, globalnega pristopa hkrati ubrati postopni pristop majhnih korakov z uvajanjem e-

storitev v javni upravi na tistih področjih in segmentih, ki so z normativnega in organizacijskega vidika dovolj pregledni in ne zahtevajo sprememb v zakonodaji, za državljane pa pomenijo pomemben korak pri zagotavljanju njihovih potreb po storitvah javne uprave na enostaven, hiter, poceni in kakovosten način.

Tak pristop majhnih korakov je pomemben za ozavedanje vseh sodelujočih v procesu izvajanja strategije e-poslovanja in vzpostavljanja e-uprave. Prve elektronske storitve na področju upravnih notranjih zadev, ki zadevajo e-izpiske iz različnih matičnih knjig, kažejo, da je že sam začetek na samo petih upravnih enotah sprožil veliko pozitivnih odmevov z jašnimi zahtevami, da je potrebno pospešeno nadaljevati na vseh upravnih enotah.

Istočasno pa se zavedamo, da je nujno potrebljivo pospeševati proces prenove javne uprave na sistematičen način, ki bi omogočil razvoj sodobne e-uprave po načelih enkratnega dajanja podatkov, pridobivanja dokazil in podatkov ter dajanja mnenj in soglasij po uradni dolžnosti, pridobivanja storitev na enem mestu, brez osebnega stika z uradno osebo, če to ni nujno.

In katera so še področja poleg upravnih notranjih zadev, kjer bi uvajali e-storitve? Predvsem gre za področje davka na dodano vrednost, dohodnine, e-storitve v povezavi s prostorskimi evidencami, e-storitvami, ki zadevajo poslovne registre, zakonodajo. Ob tem je nujno pričeti z e-poslovanjem na področju elektronskih arhivov, na področju overjanja elektronskih podpisov strank ter s tem povezano spremembo veljavnega Zakona o notariatu.

Ob tem je potrebno zagotavljati in razvijati ustrezno infrastrukturo za izdajanje in upravljanje z digitalnimi potrdili, za povezovanje in vstopanje v različne registre, identifikacijo pristojnih upravnih enot in poštnih števil, centralno številčenje zadev zaradi spremeljanja izvajanja postopka in plačila upravnih takš ter za zagotavljanje varnostnih mehanizmov.

Celotna ITKT, tehnološki in vsebinski koncept morajo biti zasnovani dovolj odprt, da bodo sposobni prenesti zahteve, ki izhajajo iz obstoječega stanja in obstoječih informacijskih virov in aplikacij ter potrebe, ki jih narekuje nadaljnji tehnološki razvoj.

4. KONKRETIČACIJA NALOG NA PODROČJU ELEKTRONSKE PODPORE NOSILCEM JAVNIH FUNKCIJ PRI IZVAJANJU 139. IN 175 ČLENA ZUP

V zadnjih nekaj mesecih smo pri delu upravnih enot priča izrednemu povečanju števila zahtevkov za izdajo potrdil o stalnem prebivališču in zahtevkov za izdajo potrdil iz evidence gospodinjstev. V nekaterih primerih so v enem letu zahtevki za izdajo omenjenih potrdil povečali za več kot 100 %.

Nič manj ni problematično tudi izdajanje potrdil iz matičnih knjig (izpiski) in potrdil o državljanstvu, ki jih izdajamo na področju matičnih zadev. Tudi tukaj javni zavodi (poleg že naštetih tudi osnovne, srednje šole in fakultete ter študentski domovi) od učencev in dijakov zahtevajo dokazila - izpiske in potrdila o državljanstvu, čemur bi se ob ustrezejših rešitvah verjetno lahko izognili in s tem manj obremenjevali otroke in starše.

Zaradi zagotavljanja rednega in nemotenega opravljanja je nujno poiskati ustrezejše rešitve pri zagotavljanju dokazil v postopkih pri vseh javnih zavodih (Zavod za pokojninsko in invalidsko zavarovanje Slovenije, Center za socialno delo, Zavod za zdravstveno zavarovanje Slovenije...).

Glede na to, da ima večina državnih organov in nosilcev javnih pooblastil v zakonodaji s svojega področja zapisano subsidiarno uporabo Zakona o splošnem upravnem postopku (npr. ZPIZ – 249. člen, ZSV – 86. člen, itd.), bi bilo potrebno dosledno izvajati določbe 139. oziroma 175. člena ZUP, ki določata, da si organ, ki vodi postopek, listino, ki jo potrebuje kot dokaz v postopku, priskrbi po uradni dolžnosti. Vloga stranke za uvedbo postopka pa se v smislu 3. člena Zakona o spremembah in dopolnitvah zakona o varstvu osebnih podatkov, smatra kot pisna privolitev stranke za pridobitev podatkov.

Center Vlade za informatiko v tesnem sodelovanju z Ministrstvom za notranje zadeve v tem trenutku v okviru programa projektov E-uprava pospešeno uvaja v vse upravne enote in za potrebe državljanov Republike Slovenije elektronske vloge z uporabo digitalnega potrdila za pridobitev izpisov iz rojstne matične knjige, poročne matične knjige in matične knjige umrlih. Z iztekom leta je tako mogoče pridobiti omenjene izpiske elektronsko na vseh upravnih enotah, prav tako je mogoče na vseh upravnih enotah v tem času zaprositi za pridobitev digitalnega potrdila. Ko bodo matične knjige informatizirane, bomo uvedli avtomatske elektronske poizvedbe, ki jih bodo izvajali posamezni nosilci javnih pooblastil.

Z namenom, da bi čim bolj ublažili omenjeni pritisk izdajanja omenjenih izpisov, potrdil, listin na upravnih enotah, predvsem pa, da bi se lahko začele izvajati določbe že omenjenih ZUP in ZVOP, v nadaljevanju podajamo konkretno predloge projektov, ki bi jih izvedli do 31.01.2002 in bi omogočili nosilcem javnih pooblastil elektronsko podporo v postopkih odločanja o pravicah in obveznostih posameznikov na področju zdravstvenega, pokojninskega, invalidskega in socialnega varstva in socialnega skrbstva.

V danem trenutku vidimo, da bo nujno sodelovanje Ministrstva za delo, družino in socialne zadeve, v čigar delovno področje sodi večina postopkov oziroma zahteve po izdaji potrdil in izpisov.

Predlog projektov, ki jih bomo pripravili do konca meseca januarja 2002:

- Elektronska podpora vpogledom in zaznamkom v zvezi s stalnim prebivališčem
- Elektronska podpora vpogledom in zaznamkom v zvezi z državljanstvom
- Elektronska podpora vpogledom in zaznamkom v zvezi z začasnim prebivališčem
- Elektronske vloge za pridobitev potrdila iz evidence gospodinjstev (dokler ni informatizirane baze)
- Projekt povezave evidenc: sprotna povezava CRP in ZPIZ-a.

Povsed, kjer imamo podatke v informatiziranih administrativnih registrih, lahko postopke tudi avtomatiziramo kot elektronske vpoglede in elektronske zaznamke. Evidence ali registre, ki še niso informatizirani, (matične knjige, evidence gospodinjstev) pa je potrebno spraviti v elektronsko obliko in potem avtomatizirati postopke, tako da bodo potekali brez intervencije referentov, kjerkoli je to mogoče. Največji učinek lahko dosežemo, če se usmerimo na tiste evidence, ki že obstajajo v informatizirani obliki ali bi jih lahko izvedli v razumnem času. Prav tako lahko izkoristimo tudi možnosti delne avtomatizacije, kjer podpremo elektronsko vlogo (državljan ne hodí več na upravno enoto, ustanova javne uprave tudi sama zaprosi za potrdilo ali izpisek), vendar pa se potrdila še vedno pripravlja "ročno" v ozadju. Usmeriti se moramo na G2G relacijo, ki bo v najvišji meri razbremenila državljanje, ki ne bodo več v funkciji kurirjev države.

5. ZAKLJUČEK

Namen SEP-2004 je postaviti in prenoviti globalne okvire razvoja, delovanja, povezovanja in odpiranja vseh informacijskih sistemov slovenske javne uprave ter postaviti konkretne pristope in modele arhitektur za nekatere najpomembnejše resorne informacijske sisteme javne uprave. Prav tako je namen postaviti institucionalni vidik z vzpostavitvijo vseh institucij informatike v Republiki Sloveniji. Z uvedbo elektronskega poslovanja v javno upravo sledi država informacijskim tokovom, ki jih narekuje svetovno gospodarstvo. Tako se razvija v sodobno informacijsko družbo, temelječ na visoko razviti informacijsko telekomunikacijski tehnologiji. Država ne bo le bolj ekonomična in prijazna do svojih državljanov, ampak bo z uvedbo elektronskega poslovanja v javno upravo tudi bistveno bolje pripravljena na izzive polнопravnega članstva v Evropski uniji.

Ključni dejavniki uspeha pri uvajanju e-poslovanja v javno upravo so predvsem v pripravi usklajene zakonske podlage e-poslovanja s tehničkimi

možnostmi e-poslovanja ter s standardi in z direktivami, ki jih na tem področju sprejema in uveljavlja Evropska Unija, v zagotovitvi proračunskih sredstev za delovanje in razvoj informacijskih sistemov javne uprave in v pridobitvi širokega izbora strokovno usposobljenih kadrov. Ob tem je treba pripraviti ustrezno politiko varovanja in zaščite, demonopolizirati telekomunikacije in zgraditi močno infrastrukturo za uvedbo e-poslovanja.

Ugotovili smo, da je treba ob celoviti prenovi javne uprave ubrati pristop s čimprejšnjimi rezultati e-storitev ali drugače povedano, takoj pričeti z e-poslovanjem v javni upravi na tistih področjih in segmentih, ki so z normativnega in organizacijskega vidika dovolj jasni in pregledni in ne terjajo sprememb v zakonodaji, za državljanе pa pomenijo pomemben korak pri zagotavljanju njihovih potreb po storitvah javne uprave na enostaven, hiter, poceni in kakovosten način. Tak pristop uvajanja e-poslovanja s konkretnimi rezultati e-poslovanja pa je pomemben za ozavedanje vseh pristojnih in sodelujočih v procesu izvajanja strategije e-poslovanja in vzpostavljanja e-uprave.

VIRI IN LITERATURA

1. Strategija elektronskega poslovanja v javni upravi RS za obdobje od leta 2001 do leta 2004 (sep-2004), Ljubljana, Center Vlade RS za informatiko, 2000.
2. Elektronsko poslovanje v Vladi Republike Slovenije, Ljubljana, Vlada Republike Slovenije in Center Vlade RS za informatiko, januar 2001.
3. Zakon o elektronskem poslovanju in elektronskem podpisu (ZEPEP). Ljubljana, Vlada Republike Slovenije in Center Vlade RS za informatiko, januar 2001.
4. Uredba o pogojih za elektronsko poslovanje in elektronsko podpisovanje. Ljubljana, Vlada Republike Slovenije in Center Vlade RS za informatiko, januar 2001.
5. Sklep o organizaciji in delovnem področju Centra Vlade Republike Slovenije za informatiko. Uradni list Republike Slovenije. Št. 12/23. 2. 2001, str. 1374-5.
6. Program projektov E-uprava, vzpostavljeni dokument programa, verzija 1.2, Ljubljana, Center Vlade RS za informatiko, april 2001.
7. <http://e-uprava/index.html>
8. http://www.gov.si/cvi/index_CVI.htm
9. <http://www.sigen-ca.si/namen.htm>
10. Projektna pisarna Centra vlade RS za informatiko, vodenje projektov E-uprava.
11. Zakon o splošnem upravnem postopku (Ur.I. RS, št. 80/1999, 70/2000)
12. Zakon o varstvu osebnih podatkov (Ur.I. RS, št. 59/1999, 57/2001 (59/2001 - popr.))
13. Zakon o elektronskem poslovanju in elektronskem podpisu (Ur.I. RS, št. 57/2000, 30/2001)
14. Zakon o pokojninskem in invalidskem zavarovanju (Ur.I. RS, št. 106/1999, 72/2000, 81/2000, 124/2000)
15. Zakon o socialnem varstvu (Ur.I. RS, št. 54/1992 (56/1992 - popr.), 42/1994 Odl.US: U-I-137/93-24, 1/1999, 41/1999, 36/2000, 54/2000, 26/2001)
16. Zelena knjiga EU o podatkih javnega sektorja
17. Odločba EU o zatiranju nezakonitih in škodljivih vsebin ter pospeševanju varne uporabe interneta

Mag. Marin Silić je diplomiral na Fakulteti za strojništvo Univerze v Ljubljani in na Visoki ekonomski šoli Univerze v Mariboru. Leta 1976 se je v podjetju Slovenija avto zaposlil kot sistemski analistik in je sodeloval pri razvoju računalniške podpore finančnega in materialnega poslovanja podjetja. Leta 1979 je postal vodja strokovne skupine AOP pri Ministrstvu za pravosodje in upravo. Leta 1984 je začel z opravljanjem nalog na področju informatizacije državne uprave kot svetovalec republiškega sekretarja za pravosodje in upravo. Pozneje je sodeloval pri vzpostavljanju strokovne skupine za informatizacijo državnih organov pri Ministrstvu za pravosodje in upravo, ki je bila predhodnica Republiškega zavoda za informatiko. Direktor Centra Vlade za informatiko je postal 1. julija 1994. V letu 2000 je magistriral na Ekonomski fakulteti Univerze v Ljubljani z naslovom magistrskega dela „Elementi strategije informatizacije javne uprave Republike Slovenije“.

INTERNET PORTALS IN PUBLIC ADMINISTRATION

THE READJUSTMENT OF INFORMATION AND OF ADMINISTRATIVE PRACTICE

Heinrich Reinermann*

Abstract

The new Internet technologies support the concept of „portals“. An Internet portal can be understood as an entry point to virtual spaces. Thus, it allows the user a „single window“ access to digital data and computer programmes which may be geographically dispersed. Various types of portals and their benefits are described in this article. The author stresses the point that the exploitation of portal concepts requires the harmonization of incompatibilities between our numerous computer systems as well as the remodelling of many traditional administrative structures and procedures.

Izvleček

Nove spletne tehnologije poznajo tudi pojem »portal«. Internetni portal je točka vstopa v virtualni prostor; uporabnikom omogoča dostop do digitalnih podatkov in računalniških programov, tudi razpršenih, skozi »eno okno«. V članku opisujemo več vrst portalov in njihove prednosti. Avtor poudarja, da zahteva uvajanje koncepta portal usklajevanje nezdružljivosti številnih računalniških sistemov in tudi reorganiziranje mnogih klasičnih upravnih struktur in postopkov.



1 Portals: A Concept in Transformation

The concept of the Internet portal is changing, and is at present beginning to evolve in a manner adapted to the potentials of modern information technology. This should determine the strategies for the Internet sites of public administrations for the foreseeable future.

Whoever believes that a portal is nothing more than an attractive showcase which gives access to a more or less staggering amount of information in the World Wide Web (WWW), behind which, however, – like a Potemkin-village – the malfunctions of traditional bureaucracy lurk almost completely unchanged, will have to change his or her mind. Portal concepts of this type were (and still are) typical for the pioneer days of public administration's turn to the WWW. A new trend is becoming more clearly discernible: namely, towards genuine gateways, through which visitors can not only look into an administrative area, but can also enter it – in other words, communicate and interact with it – a step in the direction of browser-based workplaces, from which one can obtain information, communicate, and conduct transactions online. Portals – in the recent sense of the term

– extend far beyond the possibilities offered by website user interfaces. They implement organizational concepts which – in accordance with their users' views – make digital data accessible and start application programs – undoubtedly an extremely demanding task, which is only beginning to be well understood.

2 Internet Portals as an Element of Electronic Government

In their present form, portals are one of the most important elements of electronic government. This last is to be understood as the electronically-supported work of the actors in the public sector (whether in the legislative, executive or judiciary branch, or in public enterprises on the state or community level). Table 1 points out the fields within the network of societal sectors which comprise electronic government. These are (to use the anglo-American terms finding their way into German): Government-to-Citizen, Government-to-Business, Government-to-Non-Government-Organizations, as well as Government-to-Government.

* The autor wishes to thank Gotthard Bechmann, editor of "Work, Organization, and Social Exclusion in the European Information Society, Campus, New York/Frankfurt am Main 2002", to allow a preprint of this article.

Electronic government is, therefore, by no means limited to the public sector's external relations, but includes its internal relations as well. This follows as a matter of course from the portal concept delineated above: without the adaptation of the internal use of computers within the public sector, the accessibility of programs and data for external visitors by way of a portal wouldn't be possible.

Table 1: Electronic Government in an »X2Y«-Network

E-Government	the Citizen	the State and the Administration	the Economy	the Tertiary Sector NGO
the Citizen	C2C	C2G	C2B	C2N
the State and the Administration	G2C	G2G	G2B	G2N
the Economy	B2C	B2G	B2B	B2N
the Tertiary Sector NGO	N2C	N2G	N2B	N2N

B = Business

C = Citizen/Customer

G = Government

N = Non-Government-Institution

Electronic government can, further, be characterized as follows: by the transformation of administrative activity (here and in the following understood as the activity of the public sector) into digital information space (»Cyberspace«), the "New Accessibility" of human beings, programs, data and objects (equipped with microchips) is used in the wake of the Internet technologies for a »New Shape-ability« of, in particular, its border-crossing relationships. In the past, this has often been prevented by barriers like time, space and hierarchies – not least by the medium used. Table 2 shows that, with the currently available information technologies, some direct relationships between the four basic determinants of administrative activity are possible. They can be used for portals, and make effective forms of document-management, processing of transactions and group work possible.

Table 2: New Accessibility of Key Parameters of Administrative Activity

Accessibility	Human Beings	Programs	Data	Objects
Human Beings	H2H	H2P	H2D	H2O
Programs	P2H	P2P	P2D	P2O
Data	D2H	D2P	D2D	D2O
Objects	O2H	O2P	O2D	O2O

H = Human Beings

P = Programs

D = Data

O = Objects

3 The Concept and Features of Internet Portals

A number of portal features corresponds to the associations which we normally bring into connection with a conventional entryway opening onto neighboring rooms. There, directions are given, who or what can be found where, information is provided, right of access is verified, security checks carried out, orders taken and filled, payments are made on entering or leaving, etc.

We expect all of these services in the same manner from Internet portals. But these, however, open virtual rooms, for which our traditional associations are inadequate. Internet portals can make just any space accessible, absolutely unhindered by geographical or temporal restrictions, and are always ready for information to, communication, and interaction with visitors. Information can be – user-specific – either retrieved or sent. Communication can take place in a variety of fashions, from E-Mail via web-based discussion forums, to complex audiovisual applications such as video conferences for telepresence and telecooperation in virtual networks. The transactions extend from form solutions (from downloadable, offline mailable forms to »intelligent« online form-services with fill-in assistance) to electronic filing and processing of applications with the help of electronic file-, workflow- and group-ware-solutions, as well as status queries (Trace and Track), or Electronic Commerce solutions (electronic shops, auctions, calls for tenders, procurement, etc.).¹

If this is to be possible by means of Internet portals in a user-specific manner, if these portals are to become a contact point where one can receive information, communicate and effect a transaction, then a further important portal feature comes to our attention. Incompatibilities of the information systems, which are to be expected as a result of their variety and their historical development, have to be harmonized. We can therefore imagine Internet portals as hubs, to which a visitor can be guided by various access roads (e.g., TCP/IP-networks, interactive television or WAP/UMTS-mobile phone) and from which he or she can be switched to the appropriate track, which makes it possible for him or her to find information, communicate or interact with the persons, programs, data or objects desired. A decisive prerequisite, which – in administrative practice – still often remains to be met is then, of course, the possibility of electronic communication between the visitor as a »customer« (or »buyer«) and the appropriate supplier (or »seller«). This

¹ Cf. Jörm von Lucke and Heinrich Reinermann, Speyerer Definition von Electronic Government, online-publication under <http://foev.dhv-speyer.de/ruvii>.

concerns, above all, file formats and computer programs. The conversion necessary is less an informative than a political, organizational and economic problem. Basically, this conversion can be done either by the portal server or by the »suppliers« computers, or be divided up between them.

4 Types of Internet Portals

a) Horizontal and Vertical Portals

According to their point of concentration and degree of specialization, we can distinguish different types of portals, for each of which there are already numerous examples in the WWW. Basically, one can differentiate between horizontal portals with a claim to completeness, and vertical portals, which are specialized.

In the horizontal dimension, there are, to date, only regional portals. They present a geographically-defined area in its salient aspects, which are of interest for inhabitants as well as for non-residents (tourists or industrialists looking for a prospective location), for example: its economy, education and health services, culture, history, recreation and much more. Examples would be the Hannover region (www.hannover.de) and the Lake Constance Mall (www.emb.net). Search engines are also regionally limited (for instance, www.altavista.de) as well as address books (www.yahoo.de) which, historically, were first called portals².

Vertical portals occur as institutional and thematic portals, as well as virtual market-places. Institutional portals are dedicated to the information, communication and transactions of specific companies (e. g., <http://www.microsoft.com>), states (e. g., <http://www.hessen.de>), cities (<http://www.hamburg.de>) and ministries (<http://www.auswaertiges-amt.de> [Ministry of Foreign Affairs]), federations (www.bitkom.org), radio broadcasters (www.swr.de), and many others. Thematic portals are dedicated to subjects of general interest. Some examples would be music (www.mp3.com), movies (www.imdb.co.uk), sport (www.sport.de) or television (www.zap2it.com). Portals which thematize specific situations in the life of their citizens or employees, such as going into business, building a house, a new field of responsibility, or retirement, are of particular interest for the public sector. These portals are supposed to pro-

vide – as far as possible – all of the essential information, communication and transactions bundled at a single stop, and regardless of institutional distributions of competence, or between this and the other three societal sectors shown in Table 1. Examples are the Austrian »Public Assistant« in the Internet (www.help.gv.at) or the Australian Centrelink (www.centrelink.gov.au). Virtual market-places are portals, in which the users' informational and communicative activities and transactions are, in the end, directed at buying and selling. The virtual market-place for optics, in which the processing industry and wholesale and retail trade can do business transparently and efficiently (www.open-optics.de) is typical³. Virtual market-places are also set up for the purpose of regional economic development⁴.

b) Personal Portals

In particular, the portals dedicated thematically to situations in life, and personally to citizens and employees make a trend to individualization obvious. Personal visitor-profiles have to be addressed. This presupposes exploration (User-Modelling) and presetting the corresponding fields of interest and access rights. This would be the purpose of personal citizen's portals (»Meine-Verwaltung«.de), which, customized for a profile such as »home-owner, parents of school-age children, dog-owner, road user, politically interested in certain subjects«, makes it possible to gain information, communicate and carry out transactions with the appropriate public offices and – if necessary – with other pertinent institutions. Or: personal electronic document-safes could collect and maintain all of the respective citizen's official documents⁵. Employees' personal portals – as Enterprise Information Portals, or Corporate Portals – are tailored to the employees' respective tasks, and supply them with information, communication and the possibility of effecting transactions, inasmuch as these portals provide the necessary data and application programs – if need be, via Intra- and Extranets, as well as from the Internet.

c) Metaportals

Portals can be used directly or indirectly. This is an important category for preventing the division of society into the »information-rich« and the »information-poor«. One therefore shouldn't overlook

2 Cf. Thomas Hesse and Volker Herwig, *Portale im Internet*, in: *Wirtschaftsinformatik* 1999, pp. 551 – 553 (here: p. 551).

3 Cf. as early as 1978: Heinrich Reinermann, *Bürger und Computer. Hat die EDV uns Privatleuten etwas zu bieten?* in: *Die Verwaltung* 1978, pp. 413 – 438 (here: p. 427).

4 Cf. Hans-Joachim Heusler, *Der Virtuelle Marktplatz in Bayern – Ein All Winners' Game?* in: Heinrich Reinermann und Jörm von Lucke (eds.), *Portale in der öffentlichen Verwaltung*, 2., enlarged edition, Speyerer Forschungsberichte Nr. 205, Speyer 2000, pp. 114 – 126, as well as Thorsten Bullerdiek, *Virtuelle lokale Marktplätze als Chance für Einzelhandel und Innenstadt*, in: op. cit., pp. 127 – 138.

5 Cf. Arthur Winter, @mtshelfer online - www.help.gv.at: *Das Portal zur öffentlichen Verwaltung*, in: op. cit., pp. 59 – 75 (here: p. 60).

the intermediaries, who – in spite of immediate portal access via PC at work or at home, interactive television, mobile phone or kiosks open to the public – can be approached conventionally and either personally in Public Service Centers (»Bürgerbüros«), or as architects, social workers, notaries or tax advisors, or by telephone in call centers, and, in their turn, operate the relevant portals. This type of »Portal-Portal« (Metaportals) is necessary as long as electronic government – for financial or intellectual reasons, or as a matter of principle – is not universally accepted. Because of its responsibilities, public administration would, in the long run, presumably have to keep up a certain redundancy, corresponding to the parallelism of virtual and real administration.

5 Purposes and Impacts of Internet Portals

In the course of the representation given above, some of the purposes and uses of Internet portals have already been mentioned. On closer inspection, we discover two areas of concentration for the tasks lying ahead of us with regard to our present subject: modelling the reality of public administration, and changing the reality of public administration.

a) Modelling the Reality of Public Administration

The Information-Overload phenomenon is well-known. One of its sources is electronic data processing, which converts and stores more and more aspects in the form of digital data; another source is the new Internet technologies, which – above all – have contributed to the amount of data stored somewhere in the world for access at any time (see Table 2). An uncompromisingly complete reproduction of the reality of administration would be just as inconvenient as a map which reproduces a landscape in its actual size. Portals, on the other hand, are intended to provide orientation by modelling data for specific purposes, and thereby make »information« out of them. Data as – at present increasingly digitally – represented concrete or abstract facts, have to be disregarded and suppressed inasmuch as they wouldn't be useful – and would therefore be uninformative – for the addressee. Information are models which, because of their usefulness for certain persons, stand out in the flood of uninteresting data. Portals therefore have to be designed to collect information for each individual visitor, regardless of all hindrances caused by institutional and possibly informationtechnical boundaries – and that as user-specifically, comprehensively, redundancy-free, as up-to-date, as quickly and user-friendly, but also as reliably, privately, and as economically

as possible. This is the direction in which a long and difficult journey will lead.

But the fact that this journey would nonetheless be worth the effort – for the citizenry as well as for administration – can be illustrated on the example of the document-safe described above. Above and beyond the purpose of a conventional safe, which merely contains valuables for safekeeping, a document-safe bundles all of the pertinent documents – passports, certificates, notifications, confirmations and receipts, forms and the like – centralized in the form of an integrated file, or decentralized in the form of a link-list, so that they can be easily found and consulted. A time schedule for supervising deadline expiration or settlement dates, as well as an information service which gives tips on the citizen's rights and responsibilities, can be combined with it. The administration would have the guarantee that its data are up to date and complete, and each citizen would know at a glance, what the public administration knows about him or her, and what he or she has to (or shouldn't) do.

b) Reforming the Reality of Public Administration

A second consequence is implicit in the ideas formulated above. In designing Internet portals, it isn't sufficient just to simulate reality by ignoring all of the data which wouldn't be of interest to a specific user. Often, existing reality can and must be changed.

This can be made clear on the example of the types of scientific logic for explaining phenomena on the one hand, and for design on the other. If one wants to explain a phenomenon, for instance, a segment of administrative reality, then one drafts a model, which – as in the previous section – includes, as far as possible, all of the information necessary for the purposes of the explanation: e. g., why and how, and with which resources an administrative task is done. But to use the same information for design, e. g., a conversion to EDP, would be a mere »tautological inversion« of explanatory knowledge into performance specifications. This, however, would be just as inadequate for this purpose as the logics of explanation and of design are fundamentally different. Design is directed at goals which should apply for a segment of reality which is to be changed, and at the resources necessary to this end. Goals and means, however, are often interdependent (colloquially: »You don't know what you want until you've seen what's possible«.). The fact that our documents, reports and certificates – to return to the example of the document-safe – are, as a rule, kept in completely different places, and are therefore hard to find or are inaccessible, has to do – not to the least extent – with their past and present substrate, paper. With electronic media, completely

different goals can be targeted, which would have been unattainable earlier, and therefore wouldn't even have occurred to anyone. This is just exactly why the tautological inversion is inadequate for planning tasks like building Internet portals: administrative reality has to be reformed in order to be compatible with the goals made possible by the currently available information technologies. The extent of the changes of administrative reality put on the agenda by Internet portals becomes apparent on the example of the following possibilities⁶: tele-administration as access to public authorities at any time and from any place; virtual administration as a holistic concentration of administrative activities without barriers due to the institutional distribution of competence; de-territorialization as a loosening of the topographical immobility of the »Front Office« and a possibly consolidating »Back Office«; administrative transparency with more insight and greater potential for participation, as well as for systematization and rationalization of administrative activity through re-engineering and optimized procedures in processing files, and in data keeping.

6 Information-technical and Strategic Prerequisites for Internet Portals

The development of Internet portals indicated above seems to be just as plausible as probable. But not only the public sector finds itself here just at the start of a long journey.

a) Standards and Interfaces

As far as the information systems are concerned, these systems are to a very great extent not yet well prepared for the »New Accessibility« of people, programs, data and objects. Providing information, communication, and carrying out transactions problem-and user-oriented via portals requires, for the most part, the removal of a long series of hindrances by means of protocols, standards and interfaces. Gathering information presupposes agreements on the storage, exchange and maintenance of the – as a rule – heterogeneous types of data from quite diverse sources. New forms of communication have to be integrated into the organization and practiced; this is demonstrated by the example of electronic post (E-Mail). In this case, the »New Accessibility« can result in a con-

siderable amount of communications, and appropriate methods of dealing with such masses have, for the most part, yet to be developed. Transactions which – from the viewpoint of the portal visitors – are to be carried out at one stop, can require the linkage of several, previously isolated operational procedures with specific interfaces. In addition, the adaptation of various user interfaces, the organization of access rights, and ensuring safe data exchange and program flow⁷ have to be organized. It is just the greatly facilitated access to hitherto »autistic« data stocks and programs (as an »unwelcome legacy« of vertically extended information systems), made possible by modern information technologies, which demands a certain recentralization and standardization, in order to prevent the advantages offered by Internet portals from founder on the incompatibility of the accessories needed.

b) Strategies

The newest surveys on the state as well as on the local level of the public sector show a great readiness for reform, as far as the planned use of Internet technologies is concerned⁸. The concrete approaches to Internet sites are certainly encouraging, some of them even outstanding. What is missing in breadth are strategies, how the potentials of these new key technologies can be put into practice in the direction described above. The ratio of governments which have developed this type of strategy lies, according to the surveys cited above, by five⁹ to ten¹⁰ percent.

The experience, that it takes time for innovations to assert themselves, is by no means new. If we review the short span of time within which the Internet technologies have spread (primarily in the wake of the WWW), a comparison with the integration of the automobile into social life at the beginning of the 20th century doesn't seem to be completely unfounded: knowledge of the potential, acceptance, distribution, uses, costs, learning to handle it (driver's licenses), road networks, insurance, gas stations and repair shops, law of the road and vehicle administration – all of these institutions are interdependent, and needed time in order to be set up.

With regard to Internet technologies, strategies for politics and administrative leadership are extremely important. A strong accent should be put on this point. The Internet and public administration – this is

6 In greater detail: Heinrich Reinermann, *Der öffentliche Sektor im Internet*, Speyerer Forschungsberichte Nr. 206, Speyer 2000.

7 If these criteria are fulfilled, the object can be designated as a »high-performance portal«: cf. Jörn von Lucke, *Portale für die öffentliche Verwaltung*, in: Heinrich Reinermann and Jörn von Lucke, *Portale in der Öffentlichen Verwaltung*, op. cit., pp. 7 – 20 (here: p. 18).

8 Cf. KPMG (ed.), *Verwaltung der Zukunft – Status Quo und Perspektiven für eGovernment 2000*, n. p., May 2000, as well as PwC Deutsche Revision AG – Pricewaterhouse Coopers (ed.), *Die Zukunft heißt E-Government – Deutschlands Städte auf dem Weg zur virtuellen Verwaltung*, n. p., June 2000.

9 Cf. KPMG (ed.), op. cit., p. 10.

10 Cf. PwC (ed.), op. cit., p. 11.

a subject of interest for EDP-experts only after politics has set the framework. We can't afford a »weak link« called leadership. If the essence of Internet technologies lies in the facilitation and acceleration of boundary-crossing communication, then coordination and cooperation between the federal, state and communal levels as well as between the public and other societal sectors are indispensable. Then, the state has to take on a new role, – that of the moderator – if we don't want to lose touch with international developments.

If it turns out that there are mental reservations and apprehensions regarding the reforms resulting from Internet technologies, then the state has to fulfill its duty to inform, and initiate a societal discussion on the development of technology. If the Internet technologies have a potential for innovation, then this potential has to be purposefully combined with current efforts towards modernization of administration, for instance, New Public Management. Then, however, the civil service should be given the time and be provided with the qualifications necessary for the realization of this potential. If there are legal, intellectual and infrastructural hindrances against the implementation and use of the Internet technologies, then these barriers have to be scrutinized, and, if necessary, removed. If the tempo of information-technological

progress and of the changes in life circumstances in general is high, then – in the development and maintenance of the Internet sites – a reasonable relationship between central guidelines and room for self-organization has to be found and established – for instance, in the form of editorial conferences, so that local competence, creativity and initiative aren't unnecessarily frustrated, but that the ability to communicate with third parties is nonetheless encouraged.

This is, in fact, no simple task, but a genuine challenge. This, however, should be no reason for resignation, if one compares the public with the private-commercial sector. Even in large companies, Internet activities have only recently gained top priority¹¹. The possible results will be well worth the effort. As a result of these labors, we could develop a public administration which remains transparent in spite of its complexity and differentiation, which can work just as effectively as efficiently, and thereby even gains in democratic legitimization.

¹¹ Peter Glotz, *Die Internetisierung der Old Economy*, in: Spiegel online publication under <http://www.spiegel.de/wirtschaft/politik/0,1518,84589,00.html> of July 10th, 2000, 741 p. m.: «Most of them ... are still getting ready to jump, but haven't jumped yet ... Successful E-Business approaches need ... a clear vision, which can only be realized by the total commitment of top management.»

The author holds the Chair for Computer Systems in Public Administration at the German University of Administrative Sciences Speyer. Among his fields of interest are: New Public Management and Electronic Governance.

ZASNOVA ELEKTRONSKEGA POSLOVANJA V JAVNI UPRAVI RS

Roman Tomažič, Institut za projektni management in informacijsko tehnologijo, Roman.Tomazic@ipmit.si
 Marjan Krisper, Fakulteta za računalništvo in informatiko, Marjan.Krisper@fri.uni-lj.si

Izvleček

Elektronsko poslovanje v javni upravi ni samo uporaba enotnega državnega portala, izmenjava elektronske pošte in predstavitev organov javne uprave na internetu. Za temi vidnimi elementi se skriva mnogo kompleksnih sistemov in rešitev, veliko vprašanj pravno-formalne narave, organizacijske in tudi tehnične narave pa je še v reševanju. Osnovna izhodišča, usmeritev ter tudi dejanski cilji in projekti so podani v Strategiji e-poslovanja v javni upravi za obdobje od leta 2001 do leta 2004. V tem prispevku predstavljamo koncepte elektronskega poslovanja v javni upravi RS predvsem z vidika informacijskega sistema in sorodnih vidikov.

Abstract

Concepts of E-Commerce in Public Administration of the Republic Slovenia

E-commerce in public administration means more than using the unified state portal, exchanging electronic mail and presenting state administration on the Internet. Behind these visible elements there are many complex systems and solutions. Many issues of formal legal basis, organizational and technical elements are still to be solved. Basic starting points, objectives and also actual goals and projects are set in The Strategy of E-commerce in Public Administration in the Republic Slovenia for the Period from 2001 until 2004. In this article we present some concepts of electronic government of the Republic of Slovenia, especially from the information system viewpoint and other related viewpoints.



1. Uvod

Dandanes se elektronsko poslovanje nezadržno širi v vse organizacijske sisteme in med posameznike družbe. Nekateri organizacijski sistemi in posamezniki so elektronsko poslovanje sprejeli kot nujno zlo, drugi vidijo v njem nove poslovne priložnosti, spet tretji pa se prepričajo toku dogodkov in so videti kot opazovalci neprestane dirke za vedno novimi izvivi sodobnega sveta.

Hitrost uvajanja elektronskega poslovanja v organizacijske sisteme je odvisna od njihove notranje kompleksnosti in zmožnosti za prilagoditve ter kompleksnosti povezav z okoljem, torej z drugimi sistemi. Kot eden najkompleksnejših organizacijskih sistemov, v katerega se uvaja elektronsko poslovanje, je javna uprava RS. Na tem mestu velja poudariti, da poteka glede na kompleksnost in večkrat omenjeno okornost ter slabo odzivnost javne uprave za novosti prehod na elektronsko poslovanje dokaj uspešno. V tem prispevku obravnavamo elektronsko poslovanje v javni upravi s poudarkom na konceptih informacijskega sistema, ki jih bo potrebno implementirati v bližnji prihodnosti. Prve aktivnosti trenutno že potekajo.

Pomembni koncepti, ki jih obravnavamo v tem prispevku (na primer: register postopkov, metaregister, enotni državni portal), izhajajo iz Strategije e-poslovanja v javni upravi RS za obdobje od leta 2001

do leta 2004 (v nadaljevanju: SEP-2004), ki jo je februarja letos sprejela Vlada RS. SEP-2004 je pripravil Center Vlade RS za informatiko v sodelovanju z drugimi državnimi organi in zunanjimi strokovnjaki kot osnova za vsa prizadevanja, projekte in naloge pri prehodu javne uprave RS v informacijsko družbo v letih od 2001 do leta 2004 s poudarkom na uvedbi elektronskega poslovanja, kot temeljni značilnosti informacijske družbe (CVI et al, 2001).

Za lažje razumevanje konceptov, ki so potrebeni za uvedbo elektronskega poslovanja v javno upravo, je potrebno izhajati iz zastavljenih usmeritev in ciljev SEP-2004. Usmeritev SEP-2004 kličejo po novih konceptih elektronskega poslovanja v javni upravi. Seveda so tu potrebne rešitve tudi glede pravno-formalnih in organizacijskih ureditev, vendar na tem mestu poudarjam predvsem informacijski vidik.

Pred podrobnim opisom posameznih konceptov elektronskega poslovanja je potrebno razumeti delovanje in terminologijo javne uprave. Metodologije informacijskega inženiringa priporočajo, da je kompleksne sisteme najlaže opazovati, če jih modeliramo z ustrezimi tehnikami in metodami modeliranja. Eden od modelov, ki se pogosteje uporablja, je metamodel. Zaradi enostavnejšega prikaza in razumevanja se v nadaljevanju, v točki 2, omejujemo zgolj na državno upravo RS.

2. Metamodel

Modeliranje kateregakoli sistema se običajno prične z opredelitvijo glavnih pojmov ali objektov sistema ter z določitvijo povezav med njimi. Ti modeli so uporabni za predstavitev pregledne širine celotnega sistema, ne pa tudi globine. Predstavljajo enostaven pogled na celoten sistem brez nepotrebnih podrobnosti. Taki modeli se imenujejo metamodeli.

2.1 Potreba po modeliranju metamodela državne uprave

Metamodel državne uprave (v nadaljevanju: DU) predstavlja abstrakcijo vidikov delovanja DU. Z abstrakcijo se izognemo manj pomembnim podrobnostim in se osredotočimo na najbolj pomembne vidike delovanja. Z metamodelom pridobimo to, da enostavno prikažemo strukturo objektov in konceptov sistema, kar je nato osnova za komuniciranje, izboljšave, inovacije in nenazadnje tudi osnovo in zahteve za informacijski sistem (Errikson in Penker, 2000).

Avtorji pogosto navajajo seznam prednosti modeliranja sistemov z metamodeli. Seznam prednosti je v večini podoben in velja tudi za DU:

- Metamodeli so odličen komunikacijski kanal med štirimi entitetami: zaposleni, partnerji, informatiki in razvijalci informacijskih sistemov.
- Možno je izdelati kakršenkoli pogled na sistem DU do poljubnega nivoja abstrakcije.
- Metamodeli so odlična osnova za izdelavo integriranih informacijskih sistemov. Predstavljajo vez med strategijo sistema in informacijsko podporo.
- Modeliranje zmanjša prepad med delovnimi postopki in njihovo informacijsko podporo.
- Na modelih se zaposleni lahko učijo in laže razumejo delovanje celotnega sistema.
- Z modeli je možno simulirati različne dogodke, spremembe in zahteve ter tako predvideti priložnosti ali nevarnosti za poslovni sistem.

V zadnjih nekaj letih se je močno uveljavilo modeliranje sistemov s pomočjo objektnih pristopov in jekov. Mnogi avtorji v svojih delih uporabljajo za prikaz delovanja, stanja in povezovanja poslovnega sistema objektne metamodelne in modele (npr. Eriksen, Penker, Taylor, Fowler). Ena od glavnih prednosti objektnega pristopa je ta, da naravno ponazarja način človeškega razmišljanja (Taylor, 1995).

2.2 Metamodel državne uprave

Metamodel DU je model osnovnih objektov DU in relacij med njimi. Predstavljeni objekti v metamodelu se uporabijo za modeliranje drugih bolj podrobnih modelov ali za diskusijo na višjem nivoju abstrakcije.

Predstavljeni metamodel DU na naslednji sliki zajema organizacijski, funkcionalni in podatkovni vidik

(CVI, FRI et al, 1997). Z njem je zagotovljen enovit in podroben pregled nad objekti, ki se tičejo celotne državne uprave:

- organizacijsko strukturo državne uprave na vseh ravneh,
- medsebojnimi odnosi zunanjih organizacijskih objektov v odnosu do notranjih,
- funkcionalnimi objekti (funkcijske povezave, spremljajoče centralizirane in decentralizirane dejavnosti),
- različnimi vrstami postopkov ali načini dela, ki so značilni za državno upravo (postopki, seje, projekti, naloge) ter
- spremljajočimi podatkovnimi entitetami, ki se večinoma kažejo v objektih kot so dokumenti, zadeve, rešitve.

Objekti v metamodelu, ki so označeni s črko »O«, predstavljajo organizacijski vidik, objekti z oznako »F« predstavljajo funkcionalni vidik, objekti s črkama »P« (predmet obravnave) in »D« (dokumentni vidik) pa skupaj predstavljajo podatkovni vidik. V nadaljevanju te točke so vsi vidiki opisani do nivoja, da bralec laže razume kompleksnost sistema, terminologijo ter mesto konceptov elektronskega poslovanja (na primer: register postopkov, metaregister, enotni državni portal), ki so opisani v točki 3 tega prispevka. Za podrobnejšo razlagu objektov metamodela (Slika 1) priporočamo, da si bralec prebere gradivo Strateški plan razvoja skupnega dela informacijskih sistemov državne uprave (CVI, FRI et al, 1997).

V času pisanja tega prispevka se metamodel državne uprave še nadgrajuje in izpopolnjuje. Največji poudarek pri nadgradnji in izpopolnjevanju metamodela je na določanju objektov in povezav podatkovnega in funkcionalnega vidika, ki sta osnova za prehod na elektronske upravne postopke DU.

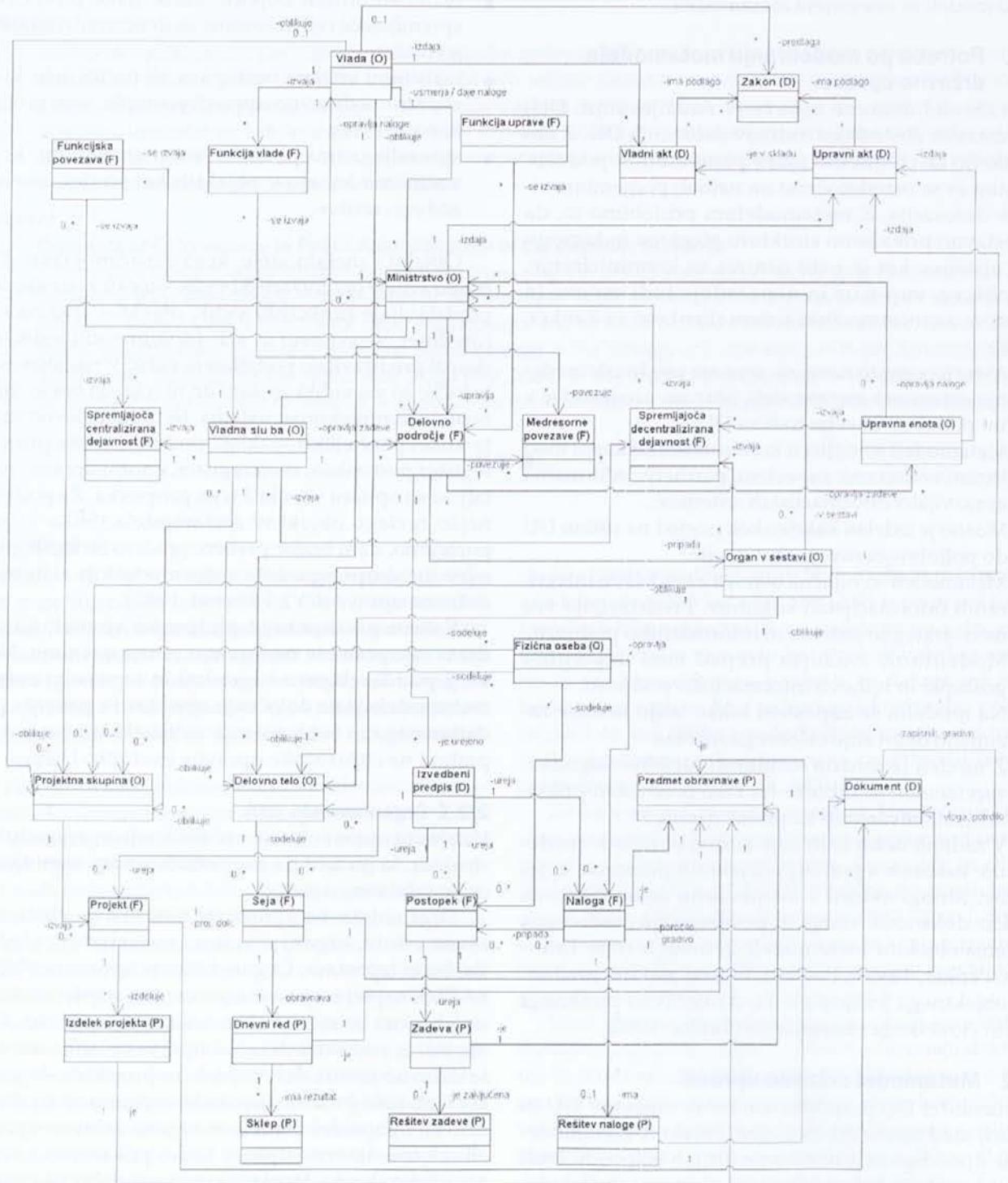
2.2.1 Organizacijski vidik

V državni upravi obstaja več različnih organizacijskih struktur, ki jih lahko s skupnim imenom imenujemo organi državne uprave.

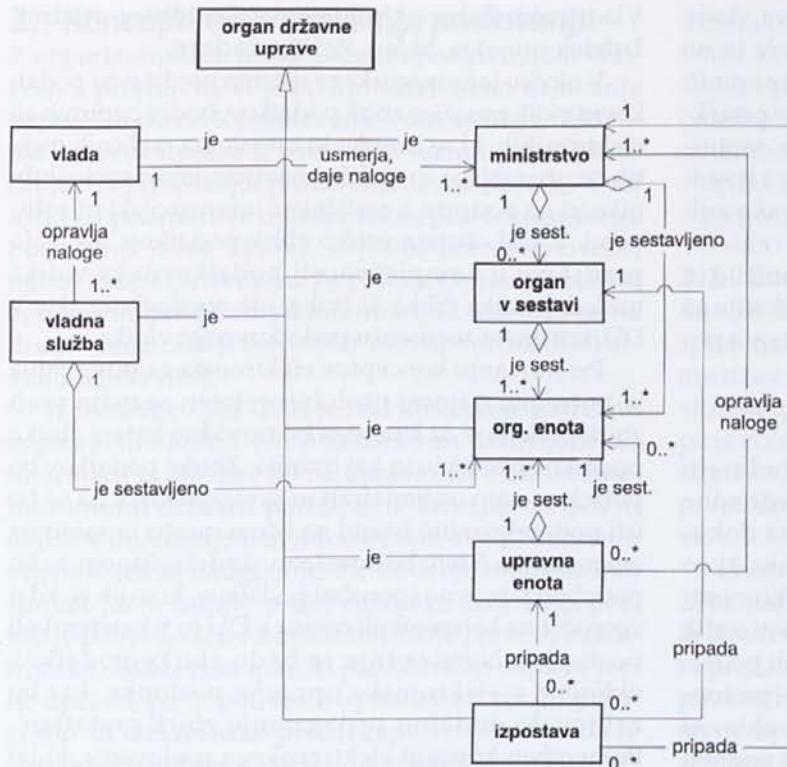
Organji državne uprave so: ministrstva, vlada, upravne enote, organi v sestavi ministrstev, vladne službe in izpostave. Organ državne uprave se običajno členi naprej na posamezne organizacijske enote, ki so lahko na primer: službe, sektorji ali oddelki. Pod organizacijski vidik državne uprave se lahko uvrstijo še delovno mesto, delovno telo in projektna skupina, ki ravno tako predstavljajo neko organizacijsko strukturo ali njihov del. Strukturo organa državne uprave ali celotne državne uprave lahko prikažemo z organizacijsko shemo. Struktura organov državne uprave je razvidna že iz slike metamodela DU (Slika 1), bolj nazorno pa jo prikazuje naslednja slika (Slika 2).

Upoštevanje organizacijskega vidika pri snovanju konceptov elektronskega poslovanja je izrednega pomena. Organi državne uprave opravljajo različne funkcije in postopke, uporabljajo različne podatke, se nahajajo na različnih lokacijah in imajo različno infor-

macijsko telekomunikacijsko infrastrukturo. Pri snovanju konceptov elektronskega poslovanja je potrebno vse naštete vidike med seboj povezati, to povezovanje pa se običajno prične ravno z modeliranjem organizacijskih struktur.



Slika 1: Metamodel državne uprave RS (CVI, FRI et al, 1997)



Slika 2: Struktura organov državne uprave

Če za primer vzamemo neki postopek, ki se odvija v državni upravi, je z organizacijskega vidika potrebno vedeti v pristojnosti katerega državnega organa je ta postopek, katere organizacijske enote pri tem sodelujejo, kateri drugi državni organi so v ta postopek vključeni, kje se geografsko nahajajo ti organi in podobno. Z uvedbo elektronskega poslovanja je potrebno vse sodeljujoče subjekte vključiti v največji možni meri. Nenazadnje je pomemben tudi nivo posameznega zaposlenega v državni upravi, ki se bo vključil v elektronsko poslovanje. Zagotoviti mu je potrebno primerno opremo na delovnem mestu, ga usposobiti, nuditi pomoč in podobno. To pa pomeni, da ne potrebujemo samo podatkov o državnem organu in postopkih, ki se izvajajo, ampak potrebujemo tudi podatke o posameznikih. Vir takšnih podatkov je lahko na primer Upravni kadrovski informacijski sistem (Colnar, Silič, Krisper, 2001).

2.2.2 Funkcijski vidik

Funkcijski vidik obsega funkcije in postopke ali načine dela v DU. V DU se izvaja mnogo postopkov. Nekateri se odvijajo pretežno v enem državnem organu, drugi zahtevajo sodelovanje večih organov, sodelovanja z okoljem pa so lahko bolj ali manj intenzivna. Za nekatere postopke je potrebno oblikovati posebne organizacijske oblike (npr. projektno skupino, de-

lovno telo). Tekom postopkov nastajajo različni dokumenti, odvijajo se sestanki in seje (sejo lahko opredelimo tudi kot neko vrsto postopka), pripravljajo in usklajujejo se mnenja, spoštuje se zakonodajo, na koncu postopka nastane rezultat, ki je predpisani z zakonodajo.

Običajno pravimo, da postopki potekajo preko več funkcij (CVI, FRI et al, 1997). V DU se na prvem nivoju funkcije delijo na: funkcije vlade, funkcionske povezave, spremljajoče dejavnosti, funkcije uprave. Spremljajoče dejavnosti pa se nadalje delijo na spremljajoče centralizirane dejavnosti in na spremljajoče decentralizirane dejavnosti. Funkcionalna dekompozicija je razvidna že iz slike metamodela DU (Slika 1), bolj nazorno pa jo prikazuje naslednja slika.

Pri funkcijskem vidiku ne smemo izpustiti štirih pomembnih načinov dela v DU. To so: postopki, o katerih je bilo govora v začetku te točke, seje, projekti in naloge s čimer se označujejo enake, ponavljajoče se naloge, ki običajno niso del večjih postopkov, ali enkratne naloge (na primer: izdelava krajevne analize).

Vsi štirje načini dela imajo posebno mesto v metamodelu DU na sliki 1. Iz slike 1 je razvidno, da vsakega od štirih načinov dela ureja neki izvedbeni predpis ali normativni akt. Postopke običajno vodijo posamezni zaposleni ali več zaposlenih (na sliki fizične osebe), pri projektih sodelujejo projektne skupine, seje izvajajo delovna telesa, posamezne naloge pa tako kot postopke obvladujejo posamezniki, torej fizične osebe. Vsak način dela ima tudi svoj rezultat (Rezultati na sliki 1: rešitev zadeve, izdelek projekta, sklep, rešitev naloge).



Slika 3: Funkcionalna dekompozicija

Uvedba elektronskega poslovanja zahteva, da se funkcionalni vidik podrobno popiše, optimizira in na koncu informatizira v obliki elektronskih upravnih postopkov, informacijskih rešitev za vodenje projektov, informacijskih rešitev za podporo sejam, samostojnih ali povezanih aplikativnih produktov za izvedbo ponavljajočih se nalog in podobno. Eden od rezultatov obravnave funkcionalnega vidika je register postopkov. Končni rezultati popisa, optimizacije in informatizacije funkcionalnega vidika pa so aplikacije za elektronske upravne postopke. Oba koncepta sta podrobnejše opisana v točki 3.

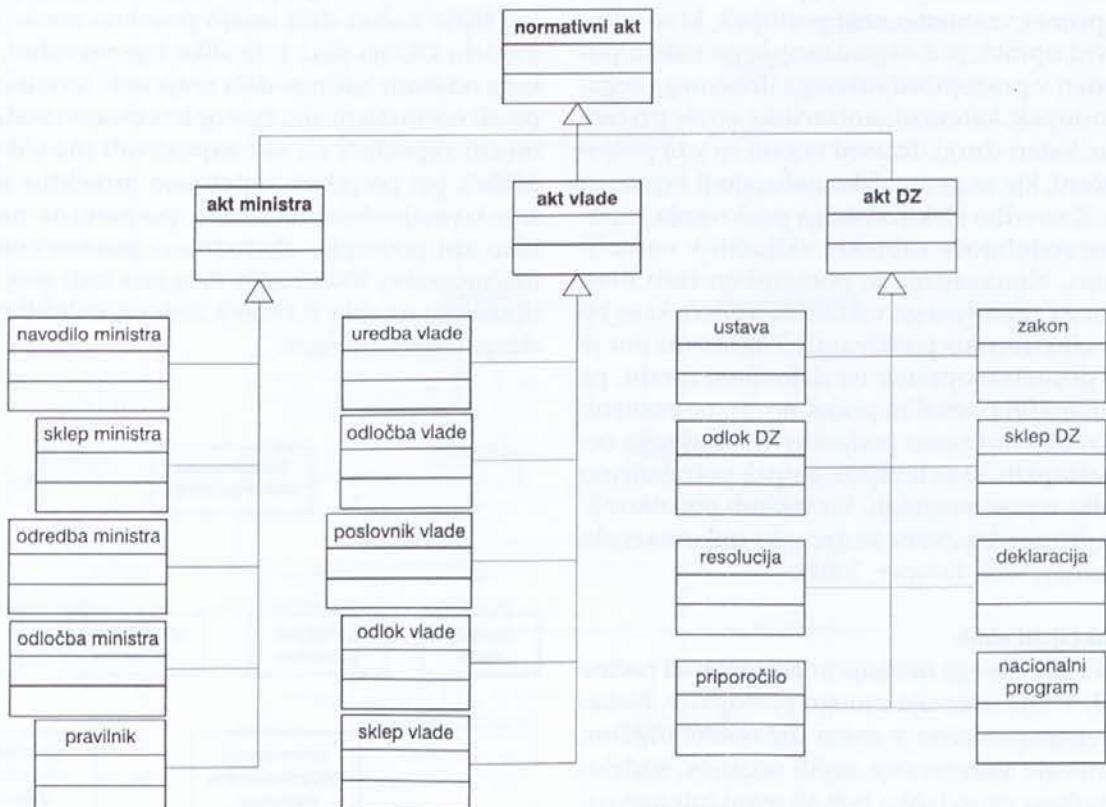
2.2.3 Podatkovni vidik

Podatkovni vidik je skupno ime za predmete obravnave v različnih načinu dela DU (iz predhodne točke: postopki, projekti, seje, naloge) in za dokumentni vidik. Na sliki metamodela DU (Slika 1) so predmeti obravnave označeni s črko »P«, dokumentni vidik pa je označen s črko »D«. Podatkovni vidik obravnava vhodne in izhodne dokumente ali podatke pri vseh štirih opisanih načinu dela v DU (postopki, projekti, seje, naloge) ter normativne akte, ki določajo, kako naj se vhodni dokumenti ali podatki pretvarjajo v rezultate oziroma rešitve. Predstavniki podatkovnega vidika iz slike metamodela (Slika 1) so:

Vladni akt, Zakon, Upravni akt, Izvedbeni predpis, Izdelek projekta, Sklep, Rešitev zadeve.

V okviru informacijskega sistema predstavlja podatkovni vidik množico zbirk podatkov, bodisi papirnih ali elektronskih, ki se hranijo in urejajo na različnih mestih, se uporabljajo za različne namene, imajo svoje skrbnike in so podprtne z različnimi informacijskimi rešitvami. V DU obstaja veliko zbirk podatkov. Za lažjo predstavo o kompleksnosti podatkovnega vidika naslednja slika (Slika 4) prikazuje normativne akte v DU, kot enem segmentu podatkovnega vidika.

Pri snovanju konceptov elektronskega poslovanja je potrebno najprej pridobiti celoten seznam vseh zbirk podatkov, iz katerega bo razvidno katere zbirke podatkov obstajajo in kaj hranijo. Zbirke podatkov bo potrebno nato optimizirati in povezati tako, da se bo isti podatek vedno hranil na istem mestu in samo na enem mestu. S tem bo doseženo, da državljanom ne bo potrebno ponovno sporočati podatkov, ki so jih že kdaj sporočili na kateremkoli mestu v DU in v kateremkoli postopku. Nenazadnje se bodo zbirke podatkov vključile v elektronske upravne postopke, kar bo zahtevalo dodatno prilagajanje zbirk podatkov. Pomemben koncept elektronskega poslovanja, ki bo nastal pri obravnavi podatkovnega vidika, je katalog zbirk podatkov. Koncept je podrobnejše opisan v točki 3.



Slika 4: Struktura normativnih aktov

3. Koncepti elektronskega poslovanja

Z organizacijskim, funkcijским in podatkovnim vidikom v prejšnji točki je bilo predstavljeno delovanje državne uprave. Razumevanje vseh vidikov delovanja državne uprave je osnova za razmišljanje o konceptih elektronskega poslovanja javne uprave. V tej točki so podrobnejše opisani koncepti elektronskega poslovanja javne uprave, ki jih bo potrebno uvesti, njihov razvoj pa trenutno že poteka. Opisani koncepti se nanašajo predvsem na informacijski sistem in ne na druge vidike, kot je na primer pravno-formalni ali organizacijski vidik.

Iz usmeritev SEP-2004 je razvidno, da je potrebno vzpostaviti enotno vstopno točko za državljanje do informacij in storitev javne uprave. Ta točka se imenuje **enotni državni portal**, ki je že vzpostavljen in deluje v internetnem in intranetnem okolju državnih organov ter se nadgrajuje. Za nudenje informacij in storitev javne uprave preko enotnega državnega portala je potrebno relevantne informacije prevesti v elektronsko obliko, postopke, ki predstavljajo storitve javne uprave, pa je potrebno optimizirati ter jih prilagoditi za elektronsko poslovanje. To pomeni, da je potrebno postopke v javni upravi najprej popisati, jih optimizirati ter prevesti v elektronske upravne postopke. S temi aktivnostmi se bo oblikoval t.i. elektronski **register postopkov**. Prevedba postopkov v elektronske upravne postopke zahteva razvoj novih aplikacij za elektronske upravne postopke. Usmeritev SEP-2004 govorijo tudi o tem, da naj bi bili vsi javni podatki na voljo, da naj bi državljeni posredovali iste podatke javni upravi le enkrat, da naj se podatki ne podvajajo in podobno. Da bi lahko zagotovili takšno preglednost podatkov javne uprave, je potrebno najprej vzpostaviti t.i. katalog zbirk podatkov, iz katerega bo razvidno katere zbirke podatkov (evidence, registri, razvidi) v javni upravi sploh obstajajo in kateri podatki se v njih hranijo. Tukaj so še posebnega pomena registri kot na primer Centralni register prebivalstva, Sodni register, razne prostorske evidence in druge zbirke podatkov z osebnimi podatki. Centralni koncept, ki bo namenjen povezovanju vseh predhodno omenjenih konceptov in pregledu nad elektronskimi upravnimi zadevami, je **metaregister**. Podrobni opisi konceptov so podani v nadaljevanju.

Kot že uvodoma omenjeno, izhajajo koncepti iz SEP-2004. V enem od poudarkov SEP-2004 so koncepti elektronskega poslovanja zabeleženi v naslednji relaciji:

SEP-2004 predvideva za naslednje obdobje štirih let večje število aplikativnih projektov za podporo skupnim funkcijam javne uprave na ključnih delovnih področjih. Na tem mestu velja poudariti predvsem vzpostavitev Enotnega državnega portala, vzpostavitev Metaregistra, izpopolnitve in

dostopnosti Kataloga zbirk podatkov ter vzpostavitev Registra postopkov, ki bodo skupaj zagotavljali večjo notranjo povezanost in dostopnost podatkov in storitev (horizontalna povezanost) ter hkrati omogočali podatke in storitve navzven za druge državne organe in za državljanje (vertikalna povezanost) na prijazen način (CVI et al, 2001).

3.1 Enotni državni portal

Enotni državni portal je bil vzpostavljen kmalu po sprejetju SEP-2004. Do sedaj je že izpolnil nekaj usmeritev in ciljev, ki jih predvideva SEP-2004, vloženega je bilo veliko napora, veliko funkcionalnosti pa je potrebno še razviti – predvsem nove elektronske storitve in dostop do virov podatkov. Trenutno je portal dostopen preko interneta pod imenom e-Uprava.

Enotni državni portal, kot je opredeljen v SEP-2004, naj bi zagotavljal javnosti dostop do informacij in storitev javne uprave (24 ur x 365 dni) na enostaven in prijazen način tako, da uporabniku ne bo potrebno poznavati notranje organizacije in notranjih postopkov javne uprave. Predstavljal bo skupno enovito predstavitev državnih organov Republike Slovenije na internetu. Tako se bo javna uprava približala državljanom ter bo bolj razumevajoča in prijazna (CVI et al, 2001). Center pozornosti pri enotnem državnem portalu so torej državljanji.

Enotni državni portal naj bi bil tako informacijski kot storitveni portal. Gre za vsebinsko delitev, sicer je to skupen portal. Informacijski portal bo nudil informacije pravnim in fizičnim osebam ter zaposlenim v upravi, kot posebni skupini uporabnikov. Preko informacijskega portala bodo dostopni javni podatki in tudi varovani podatki v skladu z Zakonom o varstvu osebnih podatkov ali drugimi zakonskimi podlagami. Storitveni portal, za razliko od informacijskega portala, ne bo omogočal le dostopa do informacij, temveč bo omogočal tudi opravljanje storitev (primeri storitev: upravne storitve, izobraževalne storitve, storitve za podporo skupnosti in izboljšanja kakovosti življenja, storitve, ki se nanašajo na e-demokracijo). V SEP-2004 je bilo predvideno, da bo potrebno razviti vsaj tri različne storitvene portale. Prvi bo portal za državljanje – fizične osebe, drugi bo t.i. poslovni portal ali portal za pravne osebe (gospodarske subjekte) in tretji bo portal za zaposlene v javni upravi.

Enotni državni portal je torej tisti koncept elektronskega poslovanja v javni upravi, ki je opazen in usmerjen navzven proti uporabnikom ter dostopen preko različnih telekomunikacijskih kanalov. Za izpolnitev vseh usmeritev in ciljev, ki so bili zadani s SEP-2004, pa je potrebno realizirati tudi druge manj vidne koncepte elektronskega poslovanja. Opisani so v nadaljevanju.

3.2 Register postopkov

Register postopkov bo zbirka podatkov, ki bo vsebovala podrobne opise postopkov v javni upravi. V okvire registra postopkov spadajo še mehanizmi ažuriranja podatkov o postopkih, mehanizmi, pravila in standardi uporabe podatkov o postopkih, protokoli dostopa ter mehanizmi povezovanja z drugimi zbirkami podatkov. Register postopkov je eden od osrednjih konceptov elektronskega poslovanja v javni upravi.

Register postopkov bo vseboval podatke kot so: ime postopka, klasifikacijski znak, pristojen organ javne uprave, upoštevanje Zakona o upravnem postopku, zakonske podlage, podroben besedni opis postopka, grafični prikaz postopka, opis posameznih aktivnosti znotraj postopka, uporabljeni informacijski viri, pravice dostopa, način izvajanja postopka, povprečno trajanje postopka, sodelujoči subjekti in podobno. V registru bo vsaka aktivnost logično opisana ne glede na to ali gre za ročno izvajano aktivnost, polautomatsko ali avtomatsko izvajano aktivnost ob podpori informacijske rešitve.

V pogled v register postopkov bo omogočen vsakemu uporabniku enotnega državnega portala, ki bo želel izvedeti kako določen postopek poteka, katere dokumente potrebuje, koliko časa traja postopek, kje mora postopek sprožiti in drugo. Register postopkov ne bo namenjen samo državljanom – strankam v postopkih, ampak bo namenjen tudi državnim uradnikom, ki si bodo lahko kadarkoli pogledali podrobnosti o postopkih. Na podlagi opisov v registru postopkov bodo lahko razvijalci informacijskih rešitev izdelali aplikativno rešitev oziroma aplikacijo elektronskega upravnega postopka. Register postopkov bo lahko imel tudi drugo bolj aktivno vlogo. Iz registra postopkov se bodo namreč lahko neposredno izvajale aktivnosti. V tem primeru ne bo potrebno razvijati posebne samostojne aplikativne podpore, ampak bo potrebno aktivnosti v registru opisati le na drugačen način (z dodatnimi logičnimi opisi), ki ustrezata t.i. sistemom za upravljanje delovnih postopkov.

Razvoj registra postopkov že poteka v okviru projektov Centra Vlade RS za informatiko. V prvi fazi je potrebno relevantne postopke popisati, nato jih optimizirati, mogoče spremeniti zakonske podlage ter jih optimizirane zapisati v register postopkov. Register postopkov se bo sprotro dopolnjeval in bo dostopen preko enotnega državnega portala, povezan pa bo tudi z drugimi ključnimi koncepti elektronskega poslovanja, kot sta metaregister in katalog zbirk podatkov.

3.3 Aplikacije elektronskih upravnih postopkov

Aplikacija elektronskega upravnega postopka je informacijska rešitev, ki podpira neki postopek, ne glede na to ali gre za posebno samostojno aplikacijo ali tak-

šno aplikacijo, ki deluje neposredno na podlagi zapisov v registru postopkov (sistemi za upravljanje delovnih postopkov).

Nekatere aplikacije so že bile razvite in so dostopne preko enotnega državnega portala (na primer: izpis iz rojstne matične knjige). Tovrstne aplikacije morajo omogočati povezovanje z zbirkami podatkov, omogočati morajo varnostne mehanizme (na primer: digitalni podpis), imeti morajo uporabniške vmesnike za uporabnike in za zaposlene v upravi, spoštovati morajo predpisane zakonske podlage, upoštevati postopek, ki je bil opisan v registru postopkov (v primeru, da ta zapis že obstaja) ter ažurirati dnevnik ali opisnik uporabe aplikacije in podatkov v postopku.

Pred razvojem aplikacij elektronskih upravnih postopkov je potrebno postopke optimizirati, nato pa jih prevesti v elektronsko obliko. Razvoj aplikacij lahko poteka neodvisno od registra postopkov, lahko pa je z njim neposredno povezan. Register postopkov ima lahko pri tem tri različne vloge. Obstojeci opis postopka v registru lahko nudi oporo pri razvoju nove aplikacije, opis postopka v registru lahko nastaja vzporedno z razvojem aplikacij, lahko pa se opis postopka v registru izdela po tem, ko je aplikacija že razvita. Naslednja slika prikazuje vse tri možne vloge registra postopkov (na sliki tudi: RP) pri razvoju aplikacij elektronskih upravnih postopkov.

3.4 Katalog zbirk podatkov

Katalog zbirk podatkov bo zbirka podatkov, ki bo vsebovala podrobne opise registrov, evidenc, razvidov in drugih zbirk podatkov, ki se vodijo v javni upravi. V sklop kataloga zbirk podatkov spadajo še mehanizmi ažuriranja podatkov, mehanizmi, pravila in standardi uporabe podatkov, protokoli dostopa ter mehanizmi povezovanja z drugimi koncepti elektronskega poslovanja.



SUDP – Sistem za upravljanje delovnih postopkov

Slika 5:
Relacija med registrom postopkov in aplikacijami elektronskih upravnih postopkov

Katalog zbirk podatkov bo vseboval podatke, kot so: ime zbirke podatkov, lastnik ali upravljavec zbirke podatkov, namen in načini uporabe zbirke podatkov, stopnja zaščite podatkov v zbirki, zakonske podlage, datum vzpostavitve zbirke, seznam in opis entitet zbirke, lokacija hranjenja zbirke, število kopij, pogostost arhiviranja zbirke, razvijalec zbirke in drugo.

Vpogled v katalog zbirk podatkov bo omogočen vsakemu uporabniku enotnega državnega portala, ki bo želel izvedeti, katere zbirke podatkov se hranijo, katere podatke vsebujejo, čemu so namenjene in podobno. Uporabnik bo lahko preko kataloga zbirk podatkov neposredno poizvedoval po podatkih konkretno zbirke podatkov, vendar le pod pogojem, da bo imel za to dejanje zadostne pravice. Podobno kot register postopkov bo tudi katalog zbirk podatkov namenjen uporabnikom in državnim uradnikom.

Katalog zbirk podatkov določa že starejši Zakon o družbenem sistemu informiranja. Trenutno poteka informatizacija kataloga oziroma njegova prilagoditev za elektronsko poslovanje v okviru projekta na Centru Vlade RS za informatiko. Razvoj kataloga zahteva kot prvo aktivnost evidentiranje zbirk podatkov v javni upravi, ugotavljanje presekov in podvajanj med zbirkami in ugotavljanje možnosti za integracijo. Rezultat prizadevanj bo med drugim tudi ta, da državljanu ne bo potrebno istega podatka večkrat sporočati organom uprave, ampak bo to storil le enkrat, podatek pa se bo zapisal na eno mesto.

3.5 Metaregister

Osnovna ideja o metaregistrusu, kot povezovalnem elementu konceptov elektronskih upravnih postopkov, je bila v grobem predstavljena že v SEP-2004. Metaregister bo povezoval vse koncepte elektronskega poslovanja, ki so bili predhodno opisani v tem prispevku. Osnovni namen metaregistra je v beleženju vseh informacij o izvajanju elektronskih upravnih postopkov na enem mestu. Gre za neke vrste povezovalni koncept in dnevnik vseh zadev, ki jih imajo državljeni z javno upravo.

3.5.1 Delovanje metaregistra

Posemzna zadeva bo v metaregistrusu zapisana tako, da bo v vsakem trenutku državljan ali referent jasno razbral, katere postopke izvaja, oziroma katere zadeve ima odprte. Na zahtevo (na primer s klikom na zadevo) bo lahko državljan o zadevi pridobil tudi podrobnejše informacije, na primer: katera aktivnost se trenutno izvaja ali pri kateremu referentu se nahaja. Preko metaregistra bo lahko državljan ali državni uradnik izvedel vpogled v register postopkov, katalog zbirk podatkov in tudi register predpisov. Da bo metaregister lahko zagotavljal omenjene funkcionalnosti, bo moral biti neposredno povezan z aplikacijami elektronskih upravnih postopkov. To bo zagotovljeno preko posebnih standardnih vmesnikov.

Ob začetku vsake zadeve se bo v metaregistrusu ustvaril zapis z osnovnimi podatki zadeve (npr. tekoča številka zadeve, identifikacijska števila pravne ali fizične osebe v postopku, oznaka postopka na katerega se zadeva nanaša, številka referenta, ki je zadevo kreiral in podobno). Med izvajanjem samega postopka pa se bodo beležile le aktivnosti, ki pripadajo nekemu postopku oziroma zadevi.

Ob prijavi državljan v enotni državni portal (podobno tudi za referenta) bo le ta imel na voljo seznam odprtih zadev. O vsaki zadevi bo imel na voljo nekaj osnovnih podatkov, ki jih bo lahko tudi poljubno uredil. Lahko bo pogledal tudi arhiv zaključenih zadev ali zahteval dodatne informacije o zadevi. V prvi fazi razvoja metaregistra bodo na enotnem državnem portalu na voljo le osnovni podatki o zadevah, v naslednjih fazah pa se bo uporabniški pogled nadgradil z drugimi podatki.

3.5.2 Glavne lastnosti metaregistra

- Neposredna povezanost metaregistra z registrom postopkov (izvajanje elektronskih upravnih postopkov na podlagi zapisov v registru postopkov).
- Postopno polnjenje in nadgrajevanje registra postopkov in metaregistra (delovanje metaregistra je pogojeno z vsaj enim opisanim postopkom v

Zadeva	Ime postopka	Datum začetka	Status	Trenutna aktivnost
VD-301	Zamenjava voznika dovoljenja	3.6.2001	V teku	Preverjanje vloge in prilog
ID-501	Prošnja za izdajo osebne izkaznice	15.9.2001	v teku	Pridobitev podatkov iz CRP
GD-701	Pridobitev gradbenega dovoljenja za stanovanjsko hišo	21.9.2001	v teku	Vpogled v zemljiško knjigo

Slika 6: Integracija metaregistra v državni portal (vir grafike: e-Uprava, Center Vlade RS za informatiko)

- registru postopkov, kasnejše dopolnjevanje je dinamično).
- Sledenje ročno izvajanim aktivnostim, avtomatsko in polavtomatsko izvajanim aktivnostim.
 - Mehanizem za dostop do drugih zbirk podatkov.
 - Poseben poudarek na zagotavljanju varnosti (uporaba digitalnih potrdil).
 - Centraliziran ali decentraliziran nadzor nad izvajanjem postopkov.
 - Ob dodajanju novih postopkov v register postopkov ostane mehanizem metaregistra nespremenjen.
 - Možna uvedba metaregistra in registra postopkov s sistemom za upravljanje delovnih postopkov.
 - Obveščanje o novih dogodkih in aktivnostih (referent ali državljan bosta ob novi aktivnosti v zadevi obveščena in bosta temu ustrezno ukrepala).
 - Metaregister bo dostopen preko enotnega državnega portala.

3.5.3 Razvoj metaregistra

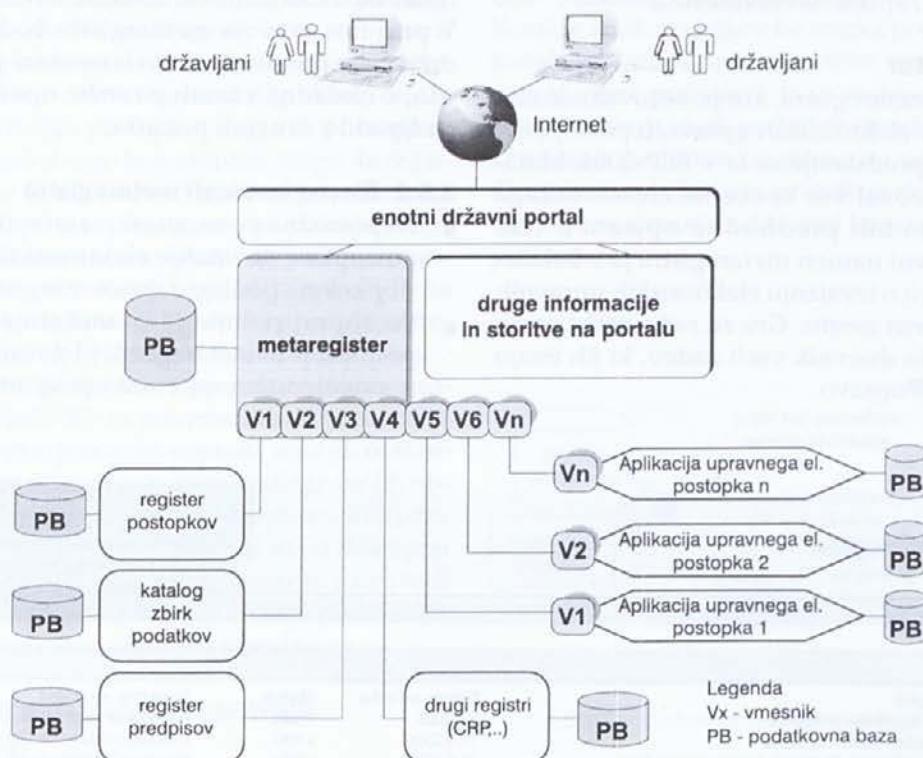
Trenutno poteka razvoj prototipa metaregistra v okviru projekta na Centru Vlade RS za informatiko. Pred vzpostavitvijo metaregistra bo potrebno rešiti tudi vprašanje skladnosti takšnega načina zbiranja infor-

macij z Zakonom o varstvu osebnih podatkov, Ustavo RS in Konvencijo Sveta Evrope št.108. Študija in rešitev skladnosti metaregistra z vsemi tremi omenjenimi akti in drugimi pravno-formalnimi podlagami je prednostna naloga. Razvoj in testiranje metaregistra bo potekalo na podlagi nekaj pogostih postopkov, ki potekajo po Zakonu o upravnem postopku.

Pri razvoju bo glavni poudarek na povezovanju vseh konceptov elektronskega poslovanja, ki so bili predstavljeni v tem prispevku. Naslednja slika prikazuje osnovno idejo ali strukturo.

4. Zaključek in napoved za nadaljevanje

Dejanska realizacija konceptov elektronskega poslovanja v javni upravi ni odvisna samo od tehnologije in obstoječega stanja informacijskega sistema v javni upravi. Izredno pomemben vidik realizacije predstavlja odgovori na vprašanja formalno-pravne narave, organizacije in reorganizacije, pristojnosti, varnosti in druge. Rešitev teh na videz pomembnejših vprašanj je predpogoj za realizacijo omenjenih konceptov. Dandanes tehnologija omogoča skoraj nepredstavljive možnosti in zato iz vidika tehnologije ni videti večjih ovir. Vse so premagljive že danes.



Slika 7: Slika konceptov elektronskega poslovanja v javni upravi

V nadaljevanju bodo naporji usmerjeni predvsem v prototipni razvoj omenjenih konceptov pri čemer se bodo oblikovale nove izkušnje in nova izhodišča za dokončanje projektov. Vzposeeno s temi projektimi bodo prizadevanja usmerjena tudi v reševanje drugih omenjenih vprašanj in dilem.

5. Literatura

Center Vlade RS za informatiko, Fakulteta za računalništvo in informatiko v Ljubljani, Fakulteta za elektrotehniko, računalništvo in informatiko v Mariboru (2001). Strategija e-poslovanja v javni upravi RS za obdobje od leta 2001 do leta 2004. Center Vlade RS za informatiko.

Eriksson, H.E in Penker, M. (2000). Business Modeling with UML, Business Patterens at Work. John Wiley & Sons, Inc.

Bajec, M in Krisper, M. (2001). Business Rule in a Business Model. Članek.

Taylor, D. A. (1995). Business Engineering with Object Technology. John Wiley & Sons, Inc.

Sheer, A.-W. (1999). Business Process Modeling. Springer.

Mihelčič, M. (1993). Temelji organizacijske teorije. Univerza v Mariboru, Fakulteta za organizacijske vede Kranj.

Fowler, M. in Scott, K. (2000). UML Distilled – Second Edition, A Brief Guide to the Standard Object Modeling Language. Addison – Wesley.

Informatica (2001). White paper - Enabling eGovernment Through Data Integration. Informatica Corporation 2001.

Laudon, K.C. in Laudon, J. P. (2000). Management Information System – Sixth edition, Organization and Technology in the Networked Enterprise. Prentice – Hall, Inc.

Center Vlade RS za informatiko, Fakulteta za računalništvo in informatiko, Služba Vlade RS za zakonodajo, Ministrstvo za notranje zadeve, Ministrstvo za obrambo, Statistični urad RS (1997). Strateški plan skupnega dela informacijskih sistemov državne uprave RS. Center Vlade RS za informatiko.

Center Vlade RS za informatiko, Fakulteta za računalništvo in informatiko v Ljubljani, Fakulteta za elektrotehniko, računalništvo in informatiko v Mariboru, Institut za projektni management in informacijsko tehnologijo (2000). Enotna metodologija razvoja informacijskih sistemov – Strateško planiranje. Center Vlade RS za informatiko.

Center Vlade RS za informatiko, Fakulteta za računalništvo in informatiko v Ljubljani, Fakulteta za elektrotehniko, računalništvo in informatiko v Mariboru, Institut za projektni management in informacijsko tehnologijo (2000). Enotna metodologija razvoja informacijskih sistemov – Objektni razvoj IS. Center Vlade RS za informatiko.

Tomažič, R. (2000). Razvoj informacijskih sistemov za upravljanje delovnih procesov – diplomska delo.

Workflow Management Coalition (1999). "Terminology & Glossary", elektronsko gradivo, WFMC 1994-1999.

Marshall, C. (2000). Enterprise Modeling with UML – Designing Successful Software through Business Analysis. Addison – Wesley.

Colnar, M., Silič, M. in Krisper M. (2001). Pristop k izgradnji celovitega kadrovskega informacijskega sistema slovenske uprave (UKIS) – članek

Roman Tomažič je diplomiral na Fakulteti za računalništvo in informatiko v Ljubljani. Zdaj je študent podiplomskega magistrskega programa Informacijski sistemi in odločanje na tej fakulteti. Zaposlen je na Institutu za projektni management in informacijsko tehnologijo in je vodja skupine za informacijsko tehnologijo. Pri projektih razvoja informacijskih sistemov slovenske uprave sodeluje dve leti in pol, ravno tako pri drugih projektih informatizacije izven uprave.

Dr. Marjan Krisper je predstojnik katedre za informatiko na Fakulteti za računalništvo in informatiko Univerze v Ljubljani in od ustanovitve leta 1992 predstojnik Laboratorija za informatiko. Bil je soustanovitelj prve slovenske računalniške revije BIT in Revije za razvoj RR. Je član več znanstvenih in strokovnih združenj, med drugim ustanovljeni član AIS (Association of Information Systems) – svetovne zveze univerzitetnih učiteljev informacijskih sistemov, Slovenskega društva INFORMATIKA, Društva za umetno inteligenco in INFOS-a. Je avtor številnih raziskav, elaboratov, ekspertiz, znanstvenih in strokovnih sestavkov, z bibliografijo, ki obsega več kot 160 enot. Vodi številne projekte razvoja informacijskih sistemov in uvajanja metodologij razvoja v največjih sistemih v gospodarstvu, državni upravi in javnem sektorju.

EXPLORING THE VALUE PROPOSITION OF EDEMOCRACY: INSIGHTS FROM eBUSINESS

John G. Mooney, Eimear Farrell

Abstract

In parallel with the rise, fall and now resurgence of eBusiness in business contexts, significant interest and experimentation into the role of Internet technologies in non-profit contexts. While there has been much discussion about the concept of eGovernment, a much quieter public movement, eDemocracy, is slowly building momentum and interest. This paper articulates the value proposition of eDemocracy initiatives by drawing upon insights derived from developments in eBusiness.

Izvleček

Vzporedno z vzponom, padcem in sedanjem oživljjanjem elektronskega poslovanja v poslovniem okolju opažamo tudi veliko zanimanje in eksperimentiranje o vlogi spletnih tehnologij v neprofitnih okoljih. O e-upravi je bilo že veliko razprav, medtem ko manj opazno družbeno gibanje, e-demokracija, le počasi postaja aktualno in pridobiva pozornost. Članek predlaga model za vrednotenje iniciativ e-demokracije na osnovi izkušenj razvoja elektronskega poslovanja podjetij.



"We are at the beginning of the information age revolution, which is changing societies all over the world. It changes the way people communicate and access information. It is also changing government itself: the organization of government, its chief relationships with its citizens and the international co-operation between governments."

Stringer, 2001¹

"It is impossible to be simultaneously blasted by a revolution in technology...and a world-wide revolution in communications without also facing...a potentially explosive political revolution."

(Toffler 1980, p.392).

Democracy: an Evolving Concept

New forms of citizen participation are becoming especially important in conjunction with the new citizen orientation of public administration. In recent years an additional conception of how to improve government-citizen relations has emerged, broadly described as "citizen empowerment," which aims to support citizens by providing them with the facilities to access government and policy information individually and to contact responsible officials (Vigoda, 2000). Better contact and information in turn will promote better accountability of public officials to citizens, and produce fertile ground for reinvigorated civil society. This type of novel administration is often related to innovations in information technology, which would allow citizens to access public information and interact with officials and leaders via the Internet (Kahin and Nelson, 1997).

At the same time, new thinking about governance has also emerged, stressing collaborative relationships and network-like arrangements between various organizations and constituencies that enable more effective problem solving and greater participation in public affairs than in the past (Stoker et al 2000:93).

In his John Gaus Lecture to members of the American Political Science Association in the autumn of 1999², Dr. George Frederickson noted that public administration is increasingly defined by efforts to create coherent patterns of governance across political chasms:

The theories and concepts of the clash of interests, of electoral and interest group competition, of games and of winners and losers have dominated and continue to dominate much of American Political Science. Public Administration, on the other hand, is steadily moving away

1 „Putting Government Online, Bringing Citizens Online,“ Speech by UK Government Minister Graham Stringer, MP, <http://www.cabinet-office.gov.uk/index/min-org.htm> and <http://www.e-envoy.gov.uk/> to the Global Forum conference in Naples, Italy on March 15, 2001.

2 Available as audio and video file at the Public Administration of American Political Science Association website, <http://www2.h-net.msu.edu/~pub-admin/>, accessed 14 July 2001.

from these theories and concepts toward theories of co-operation, the commons, networking, governance and institution-building and maintenance. Public Administration, both in practice and theory is repositioning itself to deal with the disarticulation of the State. In short, Public Administration is the Political Science of making the fragmented and disarticulated political state work.

This new kind of "negotiated social governance" can be considered "a new style of governance and as a source of new experiments in democratic practice" (Hirst 2000:19). In this perspective the governance approach can be seen as a possibility to restore legitimacy in the political system by the creation of new channels of participation and partnerships between the public sector, and the private and voluntary sector, contributing to new democratic forms of public/private interaction.

In Europe, a "new" debate has thus emerged, addressing the problems of constitutional clarity, institutional design and transparency³. In 2000 and 2001, high-profile speeches by national politicians and EU officials have sought to open the debate on Europe and its 'democratic dilemma'⁴. Romano Prodi, President of the European Commission, in "Shaping the New Europe" called for "a new, more democratic form of partnership between the different levels of governance in Europe." He claimed that "People want a much more participatory, "hands on" democracy. They will not support the European project unless they are fully involved in setting goals, making policy and evaluating progress"⁵.

The European Commission White Paper on European Governance proposes far reaching changes to the way the Union works. Five political principles - openness, participation, accountability, effectiveness and coherence underpin the recommendations of the paper.⁶ The mandate of the working group on broadening and enriching the debate on European Matters (Group 1a) focused on the need to increase levels of participation in public dialogue, discussion and debate and also to improve the quality of exchanges of information, thought and opinion.

The Emergence of eTechnologies and eDemocracy

The strategic potential of ICTs in the public sector can be found in aspects of speed and quality (Bellamy and Taylor 1998). ICTs can be used to increase public access to service agencies, which in turn can stimulate the openness of government. For example, Tapscott (1996:163) suggested that ICTs:

Not only...reduce the costs of government but also radically transform the way government programs are delivered and the very nature of governance. Internetworked [sic] government can overcome the barriers of time and distance to perform the business of government and give people public information and services when and where they want them. Governments can use electronic systems to deliver better-quality products to the public more quickly, cost effectively and conveniently.

In addition, the information and communications capabilities of the information age are lending increased credibility to alternative democratic scenarios, of which the concept of 'strong' democracy is probably the most prominent (Barber 1994). The significance of electronic means for political participation is often seen to lie in the circumvention of the need for representation. Much of the literature is therefore focused on decision-making aspects, rather than the earlier deliberative stages of democracy. In this paper however, we focus on the potential of new technology to support existing democratic structures. We suggest that information technology has the potential to re-pluralize democratic policy, through its capacity to provide low cost information, deliberation, transparency and evaluation⁷. There is an emergent view, that the process of electronic democracy can be exploited to supply 'strategic guidance' to elected politicians. In such ways, ICTs enable innovations designed to recast the relationships between citizens, politicians and government (Van de Donk et al. 1995).

Information can be 'delivered' and will empower those previously unable to access it. This is a 'push' model of information dissemination; the state will place information in accessible forums and the onus

3 See Economist, October 2000, "A Constitution for Europe?", leader. Also Diarmuid Rossa Phelan, Antje Wiener ("Debating the EU's Constitution Post-Nice: Rights Policy and the Democratic Dilemma", paper prepared for the European Scholar Seminar programme, Dublin European Institute, University College Dublin, 3 April 2001) has drawn attention to the Union's move from implicit to explicit values in the Copenhagen criteria for enlargement and the Charter of Fundamental Rights and the recent EU sanctions against Austria (See Statement from the Portuguese Presidency of the European Union on behalf of XIV member states, <http://www.portugal.ue-2000.pt/uk/news/execute/news.asp?id=425>, 31 January 2000 on this latter issue).

4 Notably that of UK Prime Minister Tony Blair in his Warsaw speech: "The citizens of Europe must feel that they own Europe, not that Europe owns them" (Blair, 2000).

5 Romano Prodi, President of the European Commission, "2000-2005: Shaping the New Europe", SPEECH/00/41, Strasbourg, 15 February 2000.

6 See press release "The Commission Proposes immediate action on European Governance", DN: IP/01/1096, 25 July 2001, available at http://www.europa.eu.int/rapid/strat/cg/uesten.ksh?_p_action.gettxt=gt&doc=IP/01/1096%7C0%7CRAPID&g=El...

7 Thereby fulfilling Dahl's criteria (1989, pp. 220-222) for the democratic process: effective participation, voting equality at the decisive stage, enlightened understanding⁷, and control of the agenda.

is on the user to access it (Chadwick and May, 2001). The audience is seen as passive recipients rather than interlocutors. State-produced information is here a passive resource to be transferred between nodes in the information network. And while citizens are inescapably part of e-government networks, their role is not as important as the state, which manages the activity. Cyberspace becomes 'normalized' into the routines of 'politics as usual' (Margolis et al, 1999).

There has been a growing preoccupation in recent democratic theory with strategies for democratizing the multiple centers of power and decision-making in the complex, interdependent structures of modern governance (Chryssochou, 1998). The case of the European Union and its information policy would seem then to provide a fitting case study for the claims of improved democracy in an electronically mediated environment.

eDemocracy in Europe

"Democracy is not just a matter of voting in elections. It concerns participation and representation in a range of decision-making fora, at many levels. The European model is embedded in the concept of informed democracy"⁸

"Europe needs more democracy" (Fischer 1999a:5).

According to Article 6 of the Amsterdam Treaty, democracy is one of the founding principles of the European Union. For Lord (1998, p.15), any democracy must satisfy three fundamental criteria: representation, accountability and identity. A precondition of effective democracy is that citizens should have sufficient information available to them. Without adequate information, citizens cannot evaluate the performance of those for whom they have voted. Nor can they participate effectively in the on-going public debate between elections, which is part of a healthy democracy. The Commission believes it is important to bring the EU closer to the citizens by making it more transparent and closer to everyday life through the EU's commitment to allowing the greatest possible access to information on its activities.⁹

The European Commission's Directorate-General for Employment, Industrial relations and Social Affairs convened a high-level expert group in 1995 to

consider the implications of the information society. This group delivered its final report in April 1997 (European Commission 1997), which included a set of policy recommendations on the theme of 'Transparency and Democracy'. Although this initially takes the form of concerns over media ownership and control, the authors also stressed that access to information is not only uneven but it is not sufficient for the immediate development of a participatory democracy. This led the group to offer a final set of policy recommendations:

To strengthen democratic development within the [Information Society] the EU should implement a democracy project. The objectives would be to reveal how ICTs can:

- step up the interaction between politicians and citizens and increase the latter's participation in political debate and decision-making;
- clarify how issues relating to human rights, xenophobia, social values, etc. should be approached in the Information Society.
- improve our understanding and the transparency of the democratic process in both National and EU institutions (European Commission 1997:51-52).

Building on this recommendation, the European Commission recently called for "eEurope: An Information Society for All" (European Commission, 1999). This initiative stresses the need to go 'beyond simply publishing legislation and white papers on the web' and to establish a discussion and feedback forum' (European Commission 1999:16). EU Commissioner Liiikanen argues that "the information revolution can provide governments and administrations all over the world...with better tools to empower citizens and to serve them better."¹⁰

In Europe, future prospects are sketched for the further evolution of "Internet democracy" with the aid of the concepts "developmental democracy" and "protective democracy" as distinguished by Held (1996) and Macpherson (1973). One is aimed at increasing product efficiency without fostering any illusions about the inherent interest of the customer of public goods in political issues. The other is aimed at increasing "civic" participation by inviting the public to submit their wishes and complaints directly to public institutions and agencies. Both visions can support an increasingly web-supported common definition of

8 European Commission Green Paper on Living and Working in the Information Society, COM (96) 389 final, paragraph 101.

9 European Commission (1998a), Public Sector Information: A Key Resource for Europe: Green Paper on Public Sector Information in the Information Society, COM (98) 585.

10 Erkki LIIKANEN Member of the European Commission responsible for Enterprise and the Information Society "eGovernment - Providing better public service and wider participation for citizens" IDEA (International Institute for Democracy and Electoral Assistance) Democracy Forum 2001: Democracy and the Information Revolution Stockholm, 29 June 2001. Available at: http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=SPEECH/01/319d0dRAPID&lg=EN, accessed 10 July 2001.

basic governance; the first to make institutional delivery of services more efficient and the second to improve the ease of informed citizen input. Implementation choices made along the lines of openness will determine the future of openness as an indicator of the vigor of a democracy.

Internet-enabled eDemocracy: Power to the People

What characterizes new Internet technologies from "traditional ICT" is their potential for interactivity, rich communication, and extensive reach. With the success of e-Commerce the transfer of concepts and systems to the public sector has been advocated. As a concept and an emerging practice, eGovernment seeks to realize processes and structures for harnessing the potentialities of information and communication technologies at various levels of government and the public.

The political significance of these developments derives from technology being conceived less as a medium for disseminating information and more as media for interactive communication. Not only are the avenues of political communication multiplying in a process that is becoming more diverse, fragmented, and complex, but also, at a deeper level, power relations among key message providers and receivers are being rearranged and conventional meanings of 'democracy' and 'citizenship' are being questioned and rethought (Brants et al., 1998). ICTs are said to contribute to the transparency of power, to favor interactive decision-making and the empowerment of citizens. The new communications are claimed to sustain a 'dialogic' politics (Fox and Miller 1995).

In particular, claims were made that on-line voting and other new kinds of political communication had the potential to 'revolutionize' democracy (Sackman and Nie 1970). Informatization was expected to facilitate all kinds of (direct as well as participatory) digital democracy (e.g. Van de Donk et al. 1995). The early history of electronic democracy is littered with experiments to employ cable TV to involve voters actively in election hustings or discussions with elected representatives (Abramson et al., 1988).

Following Arthur Andersen (2000), we concur with the distinction between e-government, e-administration and e-democracy.

E-Government is the most inclusive term. The Gartner Group defines e-Government as: "The continuous optimization of Government service delivery, citizen participation and governance by transforming internal and external relationships through technology, the Internet and new media."

E-Administration refers to government's use of ICTs to assure smooth running of public services for its clients and for its own internal functioning (Arthur Andersen, 2000: 5).

E-Democracy, the other subset of e-Government, relates to the establishment of systems designed to allow state and citizens to participate in deliberation and decision-making with the aid of new ICTs. It concerns the relation between government and citizen on the one hand, and government to government on the other (Arthur Andersen, 2000:5). A further insight into the realm of eDemocracy is provided by the scope of the "Democracy Online Project" <http://democracyonline.org> at George Washington University. The project aims to further the role of online technologies in enhancing freedom of expression, universal access to democratic information and the democratic process, government accountability, social tolerance, and public deliberation.

In order to identify the potential processes and outcome opportunities of eDemocracy, we examine the eBusiness value proposition.

The eDemocracy Value Proposition

Combining theoretical and exemplar analysis, Mooney(2001) proposes a conceptual model of the "eBusiness Value Proposition" for business enterprises. Drawing from this model, we propose the following elements of the "eDemocracy Value Proposition," that articulate the value-enhancing opportunities of Internet technologies for democracy.

Communication and Interaction-based opportunities

Compared with their ICT predecessors, Internet technologies enable significantly more interactive and richer communication between democracy stakeholders. Traditional paper-based documents and reports published and distributed by "Government Publication Offices" can be replaced with rich multimedia content that is accessible anytime any place. In addition, the interactive capability of Internet technologies can be used by citizens to engage in widely inclusive dialog among citizens, or between citizens and government. Such enhanced dialog capability enables government to be "more attentive" to its citizens, and to implement relationship enhancing service policies as "Our door is always open," "Be sure to tell us if you have a problem or issue," "The latest development on this issue is .."

The European Commission is beginning to exploit the potential of Internet technologies to improve

communication and democratic dialogue. There are currently experiments with online debates, Internet video, and electronic magazines like European Dialogue¹¹. According to the Working Group again: The EUROPA website is set to evolve into an interactive platform for information, feedback and debate, linking parallel networks across the Union.

There are several examples in the UK of successful consultation websites, e.g. COD - Citizen On-line Democracy (COD), Uspeak: Parliament listens, UKOnline CitizenSpace¹² and the Scotland E-petitioner.¹³ The Finnish city of Tampere has a city website going on since 1997, which debates on the life of the city and issues which relate to the city in a broader context. Another good example of technologically mediated democracy can be found in the Netherlands- Expertise Bureau for Innovative Policy-Making.¹⁴ The Dutch central portal (www.overheld.nl) offers discussions with information about referenda and interactive policymaking¹⁵. Sweden's Votia Empowerment www.votia.com aims to create "living dialogues" between citizens and government, and to enable the latter to "build long lasting relations with citizens."

Community-based opportunities

The use of Internet technologies to develop online communities has created significant value in eBusiness contexts. Elements of value include the use of online communities for content generation (for example, the contribution of book reviews by amazon.com's online community). In the eDemocracy context, online communities provide powerful alternatives to focus and special interest groups, and traditional lobbying channels. Technologies being used for activism¹⁶ and community media networks. As e-governance becomes more firmly entrenched and initiatives proceed beyond delivery mechanisms for existing services, new instruments of participation in policy making may be expected to emerge. Online communities provide a highly effective and efficient means for citizen participation, thus enhancing their

sense of engagement with the democratic process. Furthermore, online communities are important mechanisms for trust enhancement, and the creation of "comfort zones" with Internet channels.

Fora such as those facilitated by ICT provide an attractive way to unite European actors. One example is the Belgian Presidency's Expedition Europe website (<http://www.expeditioneurope.be>). This, in contrast to the Futurum site (<http://www.europa.eu.int/futurum>) is targeted at 17 to 25 year olds living in the European Union. These fora have the likely effect of not only reducing the democratic deficit through more defined information routes, but also have the potential to encourage greater involvement. As with fora in the non-virtual world however, debate must be structured and contributions valued.

On the other hand, projects like USpeak (<http://www.uspeak.org.uk>) have been quite successful in garnering input and discussing issues of social benefits from their website: "Uspeak is a direct link between you and Parliament - your opportunity to tell MPs your experiences and your views on tax credits, work incentives, childcare and benefits."

Another example of community-based e-Democracy is www.MoveOn.org, a community of "citizens making a difference." This initiative was created as a campaign to "immediately censure President Clinton and Move On to pressing issues facing the country." The site attracted US\$13m in pledges for the last US Presidential election, and raised over US\$2m for 29 democratic candidates from 43,232 individuals across 28 races that wanted "people reflecting our values to represent us." The site encourages the community to "speak out through its national initiatives forum."

In the United Kingdom, www.YouGov.com is illustrative of a "facilitated" virtual community initiative in which broad community engagement in the democratic process is facilitated online by a team of professional commentators, journalists, and experts. YouGov.com services include a "People's Parliament," ePetitions, and GovDoctorTM.

11 The Futurum site provides an example of the role that new media will play in the creation of a European public sphere. Indeed this area received much attention in the new White Paper on Governance and the recommendations of Working Group 1 (a) on the promotion of public debate on European questions.

12 UK Prime Minister Tony Blair offers chats on the web at the No. 10, Downing Street site.

13 www.e-petitioner.org.uk/. See also The International Centre for Teledemocracy at Napier, Edinburgh, www.teledemocracy.org.

14 The Government is devoting increasing attention to shaping the process that takes place prior to new policy measures. The trend towards a more 'horizontal' society and the rise of new forms of ICT have prompted the creation of an Expertise Bureau that can gather the acquired know-how and experience and apply it elsewhere in government organisations. The Bureau was launched on 14 June 2001. The website (www.xpnl.nl) is a virtual marketplace where clients (ministries, regional and local authorities) and suppliers (process supervisors, website/tool constructors etc.) can be brought together on an interactive basis. The website also has a database of best practices that are taking place around the world.

15 The Dutch Minister has also installed a webcam in his office.

16 The Multilateral Agreement on Investment (MAI) was stopped by private citizens and interest groups organizing transnationally through the Internet. Similarly, net activism was a key feature of the Seattle, Washington, Davos, Québec City (April 2001) and Genoa (2001) protests.

Convenience-based opportunities

In general, the convenience-based dimension of eDemocracy aims to create value by removing the inconveniences of the democratic process for citizens. Three elements are evident. First, time-based convenience aims to overcome traditional time restrictions on democratic process and services (e.g. traditional "9 to 5 closed for lunch" opening hours of government departments). Second, location-based convenience aims to use the capabilities of Internet technologies to overcome geographic barriers to citizen participation in democratic processes, for example providing virtual access to government services and democratic processes to those located in remote regions. Third, process-based convenience aims to use the capabilities of Internet technologies to reduce the complexity and/or inconvenience ("hassle") of certain democratic processes. For example, www.election.com provides secure on-line voting services, which offer significant convenience to senior citizens and others for whom physical attendance at a "voting station" is inconvenient or impossible.

Cost and Efficiency-based opportunities

Democracy has been described as "the inefficiency required to make the best public choices."¹⁷ While this may indeed be the case, it is desirable that democracy be as efficient as possible. This is increasingly the case in a "real world" in which the dominant scarcity is time, and in an online world in which the dominant scarcity is attention. Internet technologies provide opportunities for reducing the costs and increasing efficiencies of democratic processes. Examples include the reduced costs of information dissemination, citizen communication, constituent care, online donations, online voting. Efficiency improvements include reduced administrative errors, online versus paper-based processes, and faster response times (for example, real-time tallying of online voting).

Customization and Personalization-based opportunities

Within the eBusiness domain, much emphasis has been placed upon the customer value created by customization and personalization. Customization refers

to the tailoring of product or services offerings to the specific needs of the customer. Personalization refers to the growing trend of engaging in personalized exchanges with online users, resulting in a "personalized relationship" that grows from becoming acquainted, to remembering the details of previous exchanges, to anticipating future needs. In the context of eDemocracy, each citizen could be presented with personalized online services and interactions that are reflective of the history of interactions between the citizen and the state, given the enhanced online "memory" of the state. In addition, citizens may be presented with customized offerings based upon the citizen's preferences, legal status, and societal role. <http://www.hotearth.net> allows people to contact their government representatives. In addition, however, visitors can calculate their contribution to global warming by specifying their car and annual mileage. Based upon this information, the site provides customized and personalized advice on what the visitor can do to reduce global warming.

Information-based opportunities

New Internet technologies permit improvements in diffusion of information and encourage the practice of a more direct, efficient and transparent administration.¹⁸ Informing stakeholders of key facts and events, and from the enhanced learning and citizen empowerment that subsequently emerges enhances democracy. In addition, improved information flows contribute to greater transparency and openness. This aspect will be discussed below under transparency and accountability.

The launch of the EUROPA server and its recent redesign can be considered as one of the most significant EU developments in this regard.¹⁹ The California Voter Foundation www.calvoter.org is a "non-profit non-partisan organization dedicated to applying "new technologies" to provide the public with access to the information needed to participate in public life in a meaningful way." One of CalVoter's primary objectives is to improving voter and civic education, by providing politician backgrounds, contact information, maps of electoral districts, and information on how citizens can get involved in the democratic process.

17 <http://www.e-democracy.org/do>

18 Madame Loyola de Palacio, La gouvernance et la démocratie en Europe, SPEECH/00/439, at a conference on "New Forms of Governance in Europe", Lille, 9 November 2000.

19 The WWW server EUROPA (www.europa.eu.int) was launched by the Commission in February 1995 and subsequently redesigned in 2001. Its success has generated an important internal institutional process of reflection and discussion about the roles of the Internet and electronic information and their impact on information dissemination generally. It is among the world's most frequently visited sites with around five million hits per month. EUR-LEX (information source on European Community law - www.europa.eu.int/eur-lex/en/index.html), RAPID (database of daily European Union news briefings), EUDOR (document delivery service), SCAD (bibliographical database) and SCADplus (listings of EU policies and meetings) should also be noted.

Another information-based opportunity is that of online advocacy. Many political and community interest groups have used email and web sites to distribute information about their issues and priorities. The Citizens for Local Democracy in Toronto <http://www.c4ld.org/> used the Internet to further their opposition to a province-directed amalgamation of six cities into a larger Toronto. In Minnesota, the Residents Opposed to Airport Racket <http://www.no-noise.org/quietnet/roar/> used the Internet to publicize their nighttime pajama protest at the international airport. Those prepared to contract for e-advocacy services will find a willing partner with www.e-advocates.com, the "first, full-service Internet advocacy consulting firm ... to harness the power of the Internet to achieve legislative and political objective."

Interaction-based opportunities

For a healthy democracy, dissemination of information is not enough. As explained in the Working Group paper:

*"Member States and the Commission should extend the use of the Internet to ensure consultation and feedback on major political initiatives. The aim would be to go beyond simply publishing legislation and white papers on the web and establish a discussion and feedback forum possibly with independent moderators."*²⁰

One area of e-Commission activity is the improvement of democratic participation through online interaction, perhaps culminating in various forms of online public commons. EU Commissioner Liikanen believes that "To be a modern regulator, we need new ways of consulting stakeholders, for example, through increased use of the Internet"²¹. As part of the eCommission initiative the Commission has presented "Interactive Policy-Making to improve governance by using the Internet for collecting and analyzing reactions in the marketplace for use in the EU's policy-making process". (IP/01/519)²²

The development of an Internet-based mechanism for Interactive policy relying on spontaneous reactions in the marketplace and on open consultations of stakeholders meets the e-Commission objectives set out in the Reform White Paper²³ and is seeking coherence with the Commission's commitment to draw up guidelines on best practice in consultations (Action 4 Reform White Paper). It also represents an important project in the context of the Governance objective. Moreover it plays a part in the Internal Market Strategy and will help to identify people's needs during the enlargement process.

(Extract of the Progress report on Interactive Policy Making, Communication of Mr. Bolkestein, Mr. Kinnock and Mr. Liikanen).

Transparency and Accountability-based opportunities

Improved information and communication are important levers in bringing about improved control and accountability of the democratic process, primarily through the improved transparency brought about by better information and communication. Transparency has been one of the key areas of reform within the Union in the 1990s (Lord, 1998, p.87). In the wake of the European Commission's mass resignations for fraud, a Reform White Paper has identified the development of an "e-Commission" as one of the fundamental pillars to increase the transparency of the various European institutions. The issue of transparency has a number of aspects. It involves public knowledge about procedures, access to proceedings and documents and greater public participation. Enhanced use of ICTs by public authorities can ensure that citizens access information quickly and easily. In the last few years much has been done to improve the transparency of policy and decision-making (including public session of the Council) and legislation has been passed to grant access to official documents.²⁴ Clearly visible results of this reform to date have been:

- Dialogue on Europe²⁵

20 Point 10. Government online.

21 Cited in "Internet to host EU policy debates", Information dossier, Transparency section, Euractiv, www.euractiv.com.

22 Interactive Policy Making: Commission seeks to use Internet in EU's policy-making process, DN: IP/01/519, 4 April, 2001). Further information on the initiative can be found at: http://www.europa.eu.int/comm/internal_market/en/update/citizen/index.htm

23 Reform White Paper - Action Plan, Chapter II, point VI: "Towards the E Commission" Action 8 (b) - In line with the targets of e-Europe Initiative, the Commission should extend the use of the Internet to ensure consultation and feedback on major political initiatives. The aim would be to go beyond simply publishing policy documents on Internet, and to establish appropriate feedback mechanisms. Resources will have to be made available to this end. - Directorate-General Internal Market to lead pilot exercise, supported by OPOCE. Directorate-General Information Society, Secretariat general and Press and Communication Service - Review by end 2000.

24 The issue of openness and access to public sector information was attended to by the G7 in a 1995 meeting. Most directly, this was addressed by the "Government Online" project. The objective of this project was to exchange experience and best practice on the use of online information technology by administrations.

It is noted in the programme objectives that the potential of the Internet could be harnessed to realize the objective of the Amsterdam Treaty to ensure full transparency for citizens on the activities and decisions of the EU institutions. (Casey, 2001, p.68). (Government Online).

25 <http://www.europa.eu.int/igc2000/>

- Online register of President Prodi's external mail²⁶
- Unique portal to European Governments²⁷

In the United States, www.calvoter.org promotes Internet disclosure of campaign finance data, an initiative called "digital sunlight" that was subsequently enacted as California legislation through the "Online Disclosure Act." In addition, CalVoter provides an "Initiative Watch" that tracks the progress of various political initiatives, and the contribution of various political representatives to the progress or otherwise of these initiatives. It also works with the media to improve political coverage by providing non-partisan political information.

Discussion and Conclusions

The above discussion illustrates the prime dimensions of the eDemocracy value proposition. It is evident that the enhanced information and communications capabilities of Internet technologies have already been applied in a number of simple yet powerful ways to enhance democratic processes and outcomes. Some e-initiatives sought to better inform citizens, enhance transparency and improve accountability. Others sought to engender grass roots empowerment, local mobilization, and virtual community-based lobbying. We have seen remarkable achievements in online fund raising, and exciting experiments in online voting. There are also some tentative moves to transfer the eBusiness concept of Customer Relationship Management (CRM) to Voter Relationship Management (VRM) in the eDemocracy domain.

Together, these initiatives promise powerful new mechanisms for democratic participation. For many, these new mechanisms will be more accessible, more convenient, more efficient, and less intimidating. In particular, eDemocracy may be an important aspect of engaging "Generation X" in the democratic process. For others, they will be significantly less appealing than traditional democratic mechanisms. Real and perceived threats to privacy, anonymity, verifiability, and security will mitigate against widespread adoption of these mechanisms for some time. For many, the dynamic underlying the "Digital Divide" creates the strong possibility of online exclusion, rather than enhanced participation in eDemocracy initiatives.

For all these reasons, significant caution must be exercised before assuming that Internet technologies offer a panacea for the perennial problems of democracy. The

tools and mechanisms of e-Democracy should be viewed as augmenting rather than automating, complementary to rather than competing with the tools and mechanisms of "traditional" democracy. One of the challenges will be to identify the optimal combination of traditional and virtual democratic processes. Certainly, as citizen experience and comfort with eBusiness increases, and as dimensions of the eBusiness value proposition become the norm, these new norms of empowerment, engagement, transparency, and responsiveness will create expectations in other domains.

As with eBusiness, an evolutionary process will characterize the emergence of eDemocracy, in which early principles, actions, and outcomes will have significant effects on subsequent development. In the short term, and as long as geography continues to exert a strong influence on political boundaries, most of the early successes in eDemocracy will likely emerge from local, community-based, activist-driven initiatives.

Bibliography

- Abramson, J. B., F. Christopher Arterton and Gary R. Orren, *The electronic commonwealth: the impact of new media technologies on democratic politics*, (New York: Basic Books) 1988.
- Arthur Andersen, "eGouvernement: Réflexions sur l'utilisation des nouvelles technologies de l'information et de la communication par les collectivités publiques", Arthur Andersen Business Consulting Report, 2000, available at: [http://www.arthurandersen.com/resource2.nsf/vAttachLU/AA_CH_egov_FSwitzerland/\\$File/eGouvernement%20octobre%202000.pdf](http://www.arthurandersen.com/resource2.nsf/vAttachLU/AA_CH_egov_FSwitzerland/$File/eGouvernement%20octobre%202000.pdf), accessed 13 August 2001.
- Barber, L., "From the heart of Europe," *Europe*, Iss. 338; pg. 14-17.
- Bellamy C., And Taylor J.A., *Governing In The Information Age*, (Buckingham, UK: Open University Press) 1998.
- Brants, K., J. Hermes, and L. van Zoonen (Eds), *The media in question: popular cultures and public interests*, (London: Sage), 1998.
- Chadwick A., and C. May, "Interaction between states and citizens in the age of the Internet: 'e-government' in the United States, Britain, and the European Union," Presented at the 29th Joint Sessions of the European Consortium for Political Research Workshops, Grenoble, France, 6-11 April 2001 available online at http://www.essex.ac.uk/ecpr/jointsessions/grenoble/papers/ws3/chadwick_may.pdf

26 http://www.europa.eu.int/comm/commissioners/prodi/mail_en.htm

27 http://www.europa.eu.int/abc/governments/index_en.html

- Chrysochoou, D. N.,
Democracy in the European Union, (New York : Tauris Academic Studies, 1998).
- Citu 2000b: Central It Unit:
Information Age Government - Benchmarking Electronic Service Delivery, Report, Central It Unit, London 2000. Online: <http://www.citu.gov.uk/benchmarking/intl-rep.pdf>
- Dahl R.,
Democracy And Its Critics. New Haven And London: Yale University Press, 1989.
- Democracies Online Newswire
<http://www.e-democracy.org/do/>
- European Commission 1997,
"Building the European Information Society for us all. Final policy report of the high-level expert group," April 1997 available online at http://europa.eu.int/ISPO/docs/topics/docs/hlge_final_en_97.rtf
- European Commission 1999,
eEurope: An Information Society for All, available online at http://europa.eu.int/information_society/europe/news_library/pdf_files/english.pdf
- Ezgov.com <http://www.ezgov.com/portal/index.jsp>
- Fischer, J.,
Speech by the President of the Council of the European Union in the European Parliament, in Strasbourg, on 12 January 1999 (available at http://www.germany-info.org/EU/eu-st_01_12_99.htm)
- Fox, C. J. and H.T. Miller,
Postmodern public administration : toward discourse, (Thousand Oaks, Calif. : Sage Publications), 1995.
- Hague, B. and Loader B. Eds. (1999).
Digital Democracy: Discourse And Decision-Making In The Information Age.. (London: Routledge), 1999.
- Held D.,
Models of Democracy, (Cambridge: Polity Press), 1996.
- Hirst P. and S. Khilani.
Reinventing Democracy, (Cambridge, MA.: Blackwell Publishers), 1996.
- Hirst, P.,
"Democracy and governance" in Pierre J. (ed), *Debating Governance. Authority, Steering and Democracy*. (Oxford: Oxford University Press), 2000, pp. 13-36.
- Hubert A. And Caremier B. (2000)
Democracy And The Information Society In Europe. Luxembourg: European Communities.
- Kahin B. and C. Nesson (Eds),
Borders in cyberspace: information policy and the global information infrastructure, Cambridge, Mass.: MIT Press, 1997.
- Loader Brian. Ed. (1997)
The Governance Of Cyberspace: Politics, Technology And Global Restructuring. London: Routledge.
- Lord, C.,
Democracy in the European Union (Sheffield, England : Sheffield Academic Press, 1998).
- Macpherson, C. B.,
Democratic theory: essays in retrieval, (Oxford: Clarendon Press), 1973.
- Margolis, M., D. Resnick, D., and J. Wolfe,
"Party Competition on the Internet in the United States and Britain," *Press/Politics*, 4 (1999), 4, pp. 22-47.
- Mooney, John,
"The eBusiness Value Proposition: Imperative for 'Traditional' Firms," Working Paper 2001.
- Politicsonline <http://www.politicsonline.com/>
- Sackman, H., and N. Nie,
The Information Utility and Social Change, (New York: AFIPS Press), 1970.
- Stoker, G., W. L. Miller, and M. Dickson,
Models of local governance : public opinion and political theory in Britain, New York : Palgrave, 2000.
- Tapscott, D.,
The digital economy: promise and peril in the age of networked intelligence, (New York : McGraw-Hill) 1996.
- Toffler, A.,
The Third Wave, New York: Morrow, 1980.
- Van de Donk, W.B.H.J. I.Th.M. Snellen, and P.W. Tops (Eds),
Orwell in Athens : a perspective on informatization and democracy, (Oxford : IOS Press), 1995.
- Vigoda, E.,
"Are you being served? The responsiveness of public administration to citizens' demands: An empirical examination in Israel," *Public Administration*, 78 (2000), 1: 165-191.
- Wilhelm Anthony (2000)
Democracy In The Digital Age, London: Routledge.

John Mooney is currently a Visiting Associate Professor of Information Systems at the Graduate School of Management, and a Visiting Scholar at the Center for Research on Information Technology and Organizations, University of California, Irvine, USA. He is a Senior Lecturer in Management Information Systems and eBusiness at the Smurfit and Quinn Schools of Business, University College Dublin, Ireland. Professor Mooney's research interests include eBusiness strategy and processes, the management of Information Technology resources, and IT Outsourcing. The original concept of this paper was first presented at the 14th Bled Electronic Commerce Conference panel session on "eDemocracy: A Panacea or Pandora's Box," June 26, 2001.

Eimear Farrell is a graduate of Trinity College Dublin and is currently reading for an MA in European Studies from the Dublin European Institute (UCD). Her research interests include the impact of information and communication technologies on democracy and on public administration. Her Masters' thesis examines e-government as an emerging force in European governance, including design, delivery and decision-making capabilities. Much of the background material for this article is drawn from this thesis.

Pristopna izjava

Želim postati član Slovenskega društva Informatika

Prosim, da mi pošljete položnico za plačilo članarine SIT 5.200 (kot študentu SIT 2.400) in me sproti obveščate o aktivnostih v društvu.

(ime in priimek, s tiskanimi črkami)

(poklic)

(domači naslov in telefon)

(službeni naslov in telefon)

(elektronska pošta)

Datum:

Podpis:

Včlanite se v Slovensko društvo INFORMATIKA.
Članarina SIT 5.200,- (plačljiva v dveh obrokih) vključuje tudi naročnino za revijo
Uporabna informatika.

Študenti imajo posebno ugodnost: plačujejo članarino SIT 2.400,-
in za to prejemojo tudi revijo.

Izpolnjeno Naročilnico ali Pristopno izjavo pošljite na naslov:
Slovensko društvo INFORMATIKA, Vožarski pot 12, 1000 Ljubljana.

Lahko pa izpolnite obrazec na domači strani društva

<http://www.drustvo-informatika.si>

■ ■ ■

Udeležite se našega posvetovanja

DNEVI SLOVENSKE INFORMATIKE 2002

INFORMATIKA KOT PRIMOŽNOST IN IZZIV

17. do 19. april 2002, Kongresni Center Grand hotel Emona, Portorož

www.drustvo-informatika.si/dogodki

INTERNET ■ INTERNET ■ INTERNET ■ INTERNET ■ INTERNET ■ INTERNET ■ INTERNET

Vse člane in bralce revije obveščamo,
da lahko najdete domačo stran društva na naslovu:

<http://www.drustvo-informatika.si>

Obiščite tudi spletnne strani mednarodnih organizacij, v katere je včlanjeno naše društvo:

IFIP: www.ifip.or.at

ECDL: www.ecdl.com

CEPIS: www.cepis.com

Revija Uporabna informatika je od številke VIII/4 dalje vključena v mednarodno bazo INSPEC.

INTERNET ■ INTERNET ■ INTERNET ■ INTERNET ■ INTERNET ■ INTERNET ■ INTERNET

Naročilnica

Naročam(o) revijo UPORABNA INFORMATIKA

- s plačilom letne naročnine SIT 4.600
 izvodov, po pogojih za podjetja SIT 13.800 za eno letno naročnino in SIT 8.900 za vsako nadaljnjo naročnino
 po pogojih za študente letno SIT 2.000

Naročnino bom(o) poravnal(i) najkasneje v roku 8 dni po prejemu računa

(ime in priimek, s tiskanimi črkami)

(podjetje)

(davčna številka)

(ulica, hišna številka)

(pošta)

Datum:

Podpis:

UPORABNA INFORMATIKA
ISSN 1318-1882

Ustanovitelj in izdajatelj:

Slovensko društvo Informatika, 1000 Ljubljana, Vožarski pot 12

Glavni in odgovorni urednik:
Mirkо Vintar

Uredniški odbor:

Dušan Caf, Aljoša Domjan, Janez Grad, Andrej Kovačič, Tomaž Mohorič,
Katarina Puc, Vladislav Rajkovič, Ivan Rozman, Niko Schlamberger, Ivan Vezočnik, Mirko Vintar

Tehnična urednica: Katarina Puc

Oblikovanje: Zarja Vintar, Dušan Weiss, Ada Poklač

Naslovница: Bons

Tisk: Prograf
Naklada: 800 izvodov

Revija izhaja četrtletno. Cena posamezne številke je 3.500 SIT.

Letna naročnina za podjetja SIT 13.800, za vsak nadaljnji izvod SIT 8.900.

Letna naročnina za posameznika SIT 4.600, za študente SIT 2.000.

Celotni Oraclev E-Business Suite.

Oracle E-Business Suite	
Marketing	✓
Spletna trgovina	✓
Prodaja	✓
Podpora uporabnikom	✓
Nabava	✓
Dobavna veriga	✓
Finance	✓
Človeški viri	✓
Aplikacijski strežnik	✓
Podatkovni strežnik	✓

Oraclove rešitve so razvite za povezano delovanje.

Aplikacije različnih proizvajalcev zahtevajo sistemsko integracijo.

Sistemska integracija stane veliko več kot sama programska oprema.

Razmislite o tem.

ORACLE®
SOFTWARE POWERS THE INTERNET™

www.oracle.si

Uvodnik

Razprave

Mirko Vintar:

E-uprava deset milisekund po velikem poku

Janet Caldow:

Seven e-government Leadership Milestones

Patricia Diamond Fletcher:

The Changing Landscape of the U.S. Federal Government:

Electronic Delivery of Information and Services



Marin Silič:

Izvajanje strategije e-poslovanja v javni upravi RS za obdobje od leta 2001- 2004

Heinrich Reinermann:

Internet Portals in Public Administration - The Readjustment of Information
and of Administrative Practice

Roman Tomažič, Marjan Krisper:

Zasnova elektronskega poslovanja v javni upravi RS

J. John G. Mooney, Eimear Farrell: Exploring the Value Proposition of e-Democracy

Obvestila

Program ECDL

Koledar prireditev