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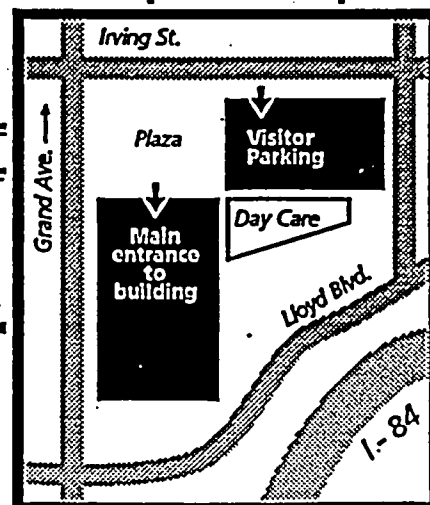
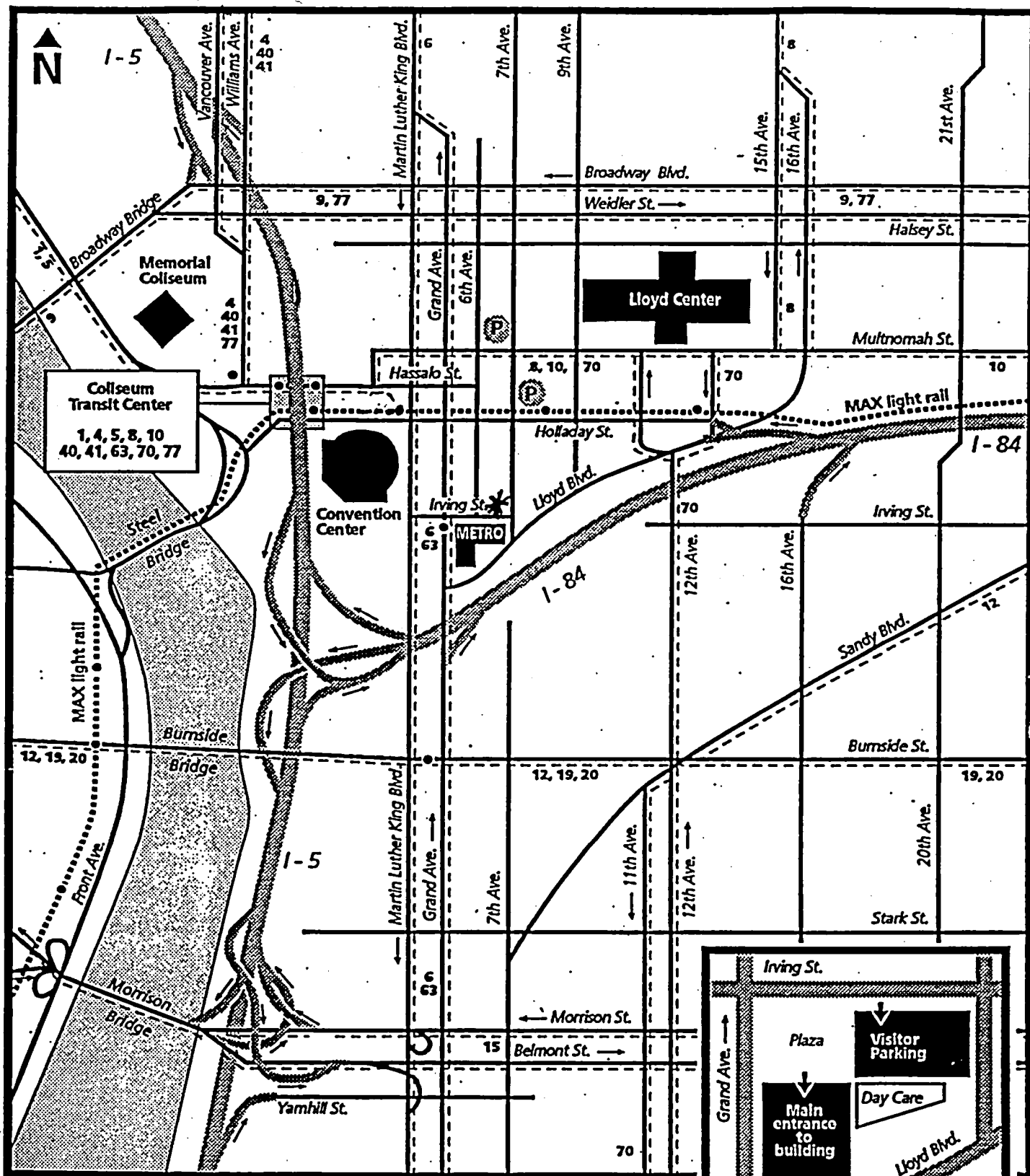
Meeting: **FUTURE VISION COMMISSION**Date: **July 11, 1994**Day: **Monday**Time: **4:00 p.m. - 6:30 p.m.**Place: **Metro, Room 370**Approximate  
Time

- |  |            |
|--|------------|
| 1. CALL TO ORDER   | 10 minutes |
| 2. ROLL CALL   |            |
| 3. PUBLIC COMMENT  |            |
| 4. OTHER BUSINESS  |            |
| 5. MINUTES<br>June 27, 1994 minutes. Approval.   |            |
| 6. FULL COMMISSION WORK SESSION<br>• Presentation by Dr. Nancy Wilgenbusch of Marylhurst College | 60 minutes |
| 7. SUB COMMITTEE WORKSESSIONS<br>• Mapping Subcommittee<br>• Policy Subcommittee                 | 60 minutes |
| 8. FULL COMMITTEE WRAP UP  | 20 minutes |

*Reminder:* Commission Picnic at Peter's Farm 7/18 - details and map to follow

To assure a quorum members please R.S.V.P. to Barbara Duncan  
at 797-1562 if you are unable to attend.

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# **FUTURE VISION COMMISSION**

**Meeting Summary, June 27, 1994**

Members in attendance: Len Freiser, Chair; Judy Davis, Mike Houck, Wayne Lei, Robert Liberty, Peggy Lynch, Peter McDonald, Susan McLain, Ted Spence, Rod Stevens and Bob Textor.

Others in attendance included: David Ausherman, Glen Bolen, Barbara Duncan, Ken Gervais, Larry Shaw and Tom Tucker.

## **I. Call to Order and Roll Call**

The meeting was called to order at 4:10 by Chair Freiser.

## **II. Public Comment -**

Bob Textor stated that he had spent time reading through some of the Region 2040 survey responses and found them very interesting.

Peggy Lynch mentioned the inspiring results of the Region 2040 school involvement project which are on display in the Metro lobby.

Susan McLain suggested that a one page summary, updated weekly, of response received to the Region 2040 public involvement efforts be developed, such as X number of surveys received, X number of attendees at open houses, etc.

Robert Liberty stated that he was speaking to the Neighborhood Land Use Council meeting tonight, it is a coalition of Portland neighborhood land use activists.

## **III. Minutes**

The minutes of June 13, 1994 were accepted with Chair Freiser's suggestion of an additional note explaining that the subcommittees met for an hour before the full meeting began.

## **IV. Work Session**

Members discussed the June 15th Joint MPAC/JPACT/Future Vision meeting. A letter is being sent to MPAC and JPACT members not in attendance at the meeting with the Future Vision information packet and a request for their comments on the Vision document.

Ken Gervais stated that the favorable response to the Commission's presentation leads to three possible directions or next steps. One is that the committees responded so well to the Future Vision work that the Commission should reach out further. Second, that the Commission should now get into more specifics, and third, that the Commission should concentrate on getting the work out to the public and gaining its support.

Robert Liberty stated that there were issues from the mapping committee that are yet to be resolved including:

- the urban reserve issue (a tour of these areas might be appropriate)
- the centers issue
- the governance issue, how can this nine county area be organized.

Judy Davis stated that further work is also needed in the writing group on carrying capacity and more closely matching the writing to the mapping.

Robert Liberty stated that a shared tax base might be an issue to address in the discussion of regional governance. Commissioners discussed a shared tax base and the Minneapolis/St. Paul example.

Ken Gervais suggested that there are two approaches; to get "buy in" first on the end goal and then get into "here's how" or to start with the details of how it can be achieved.

Susan McLain stated that FOCUS group now has a document that the Commission may want to look at.

Commissioners discussed the scope and best way to approach the vision, the political issues, implementation and strategy.

Wayne Lei stated that to discuss this intelligently the Commission needs to use the Carrying Capacity work done by Wim Aspeslagh.

Ken Gervais asked about timing, should the June 14th draft be worked on with the intention of having a piece ready for inclusion with the Region 2040 Preferred Alternative that is being mailed out in September?

Peggy Lynch thought that the Commission had agreed that the draft would be sent with the Concept Report.

Ken Gervais stated that the Concept Report is now being printed and will be sent out in the next few weeks. He stated that the draft vision could be sent to that group if the Commission wants.

There was discussion of the feasibility of completing this task within the required timeline. In order to do this the draft to be sent will need to be finalized by the end of August.

Peter McDonald stated that it is premature to send out the map, members agreed. Cost of color reproduction is also a consideration.

Motion: Peggy Lynch moved that the Commission send out the draft Future Vision document to those people who had requested a copy of the Concept Report for Region 2040. Bob Textor seconded the motion and it was passed unanimously.

Rod Stevens suggested that a time line and schedule for the Commission's work over the next year be developed.

Ken Gervais stated that the time line may depend on the new Council.

Judy Davis stated that the Commission cannot take the time to do the comprehensive plans for the region, we cannot get into that level of detail.

There was discussion on the Charter requirements for the Future Vision and the level of detail needed to meet these requirements.

Robert Liberty wrote a list of items and issues still to be worked on by the Commission:

- 1) UGB expansion. If so, where?
- 2) Centers (subregional and old downtowns, how many and what size)
- 3) Additional rural reserve areas
- 4) Large vacant industrial land
- 5) Transportation system (realism and mode split w/density assumption)
- 6) Resources and areas to be restored (natural and social)
- 7) Implementation, government and finance
- 8) Support for the cities (centers)

Under item (7) sub-issues are:

- seven county Oregon region
- bi-state cooperation
- shared tax base
- regional vs. state and local manufacturing structure and costs
- relationship to the Regional Framework Plan and RUGGOs

Members discussed this list and further discussed timelines and goals. There was discussion of a possible new sub-committee to work on obtaining public support, members agreed that that was not appropriate at this time but that the two sub-committees (policy and maps) should continue and time should be set aside for the sub-committees to brief each other.

Chair Freiser suggested the end of January for a deadline for the Vision to be complete and forwardable to the Metro Council, Commissioners agreed.

Commissioners discussed Ethan Seltzer's suggested calendar and June 20th memo.

Ken Gervais stated that it is not reasonable to assume that the planning department staff would be able to provide more detailed information than that available for Region 2040.

Rod Stevens mentioned John Fregonese's comment from the Joint meeting that more important than where the boundary is, is what type of urban form is happening inside the boundary. Urban design must be part of the Vision.

**VI. Other**

Bob Textor thanked Ken Gervais for his summary of the *New Visions* book.

The meeting was adjourned at 6:30 p.m.

Respectfully submitted by Barbara Duncan.

PEGGY LYNCH

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July 1, 1994

**Report on Washington County Public Officials Caucus held June 30, 1994**

First agenda item was discussion of a multi-agency report on Total Water Management in the Tualatin Basin. Conclusion of study was that the region's governments should set a goal of "Total Water Management"--both water coming into our faucets AND down our drains--to better "manage water for people and the environment". Some agencies have already started consolidated billing and are discussing joint use of major capital equipment (such as TV equipment for checking lines). A sample Resolution was presented and each government was encouraged to pass it by the end of August (supporting the above goal). Possible methods to reach goal: more intergovernmental agreements, combining current agencies into one mega-agency under a new Board, combining current agencies into one mega-agency under the Unified Sewerage Agency under the Wash. Co. Board of Commissioners.

Reaction by group seemed to be some interest in increasing efficiencies, but City of Beaverton seemed most skeptical about a mega-agency and most interested in continuing w/intergovernmental agreements. Call Unified Sewerage Agency or Tualatin Valley Water for a copy of the report.

Next, John Fregonese of Metro gave a presentation on the latest 2040 info and conclusions. (Personal note: I am still concerned that the talk about a jobs/housing balance is not clear. Metro is really talking about the need for "services and trade next to density", not necessarily one's workplace next to one's home. Of course, in neighbor cities, the idea of a jobs/housing balance is really about working in the city where you live--a problem when a person owns a home--large personal investment--and changes jobs within the region.)

One interesting comment from John: Expanding the UGB beyond 20,000 acres will be more expensive (per water and sewer providers). Current definition of "Central City: 1,000,000's; Regional Centers: 100,000's; Town Centers: 10,000's. He implied that Hillsboro and Gresham seem to be logical Regional Centers, with Beaverton/Washington Square combined as another. Then there are Corridors (such as Main Streets); Nodes or Neighborhood Centers (such as light rail station areas); Employment Areas (mixed use and industrial sanctuaries); and finally Neighborhoods.

Per John, the 2040 decision will be a GENERAL growth decision with Council action being described as: 1) Description of general urban form (UGB, general Urban Reserves areas, Phasing Plan), 2) Amend RUGGOs by more clearly defining terms and recognizing the Charter, 3) Set a work plan--how we get to the specifics, 4) Do population projections for 2015 and 2040, 5) Work on Regional Framework Plan implementation strategy, 6) Functional Plan Amendments.

Staff is working on 1) Developing a Concept Map, 2) General density design, 3) Allocating population and jobs, 4) Transportation design, 5) Test transportation design, 6) Final draft of Metro Executive's recommendation due Sept. 9, 1994. (Council hearings and decision Oct/Nov.)

Large interim meeting scheduled for July 27th: MPAC/JPACT/FVC/Metro Council. Will review results of mailing and other new information. Have had 13,000 responses; expect 15,000--originally hoped for 5,000!

Commissioner Kim Katsion asked if "affordable housing" had been considered? John: Not a part of the concepts study.

Beaverton Councilor Soth: Where did you expect to get funding for the transportation pieces? John: Did not look at financial constraints--that will have to come next. Soth: On smaller lot sizes, what size homes on what size lots? John: expect housing sizes to INCREASE as people spend more time at home (telecommuting, home jobs, etc.), but outdoor private space will decrease. (Peg's comment: What about the large number of us who will be a part of the "seniors" population? What size housing will we want or need?)

Tigard Councilor: Why decide in Nov. '94, rather than w/new Council? John: Current Council has background and community feels strongly that we need to decide something--decision can't wait. Andy Cotugno: Also, there are state and federal deadlines we need to meet early in 1995. We have to continue forward in order to meet those deadlines (transportation, Clean Air, etc.).

Commissioner Linda Peters: Questioned if Metro had considered the AMOUNT of farmland needed in order for the industry to stay healthy--that is, to support the tractor salesman, the processing plants, etc.--not just the amount needed to separate communities? John: It has been discussed, but no analysis has been done; Urban Reserves analysis will do this. Metro Councilor McLain: Farmland goes beyond the Greenbelts shown.

Tualatin City Councilor: Asked about public process and, especially how the flyers are being used. John: He looks at them as a "big public hearing", rather than a statistical survey. About 10,000 returned surveys have written comments beyond circling the numbers.

Citizen (no name): What impact will there be on cities that are already built out? John: Cities redevelop. That issue will be a major one for local governments to work out--the rules and possible incentives.

Brent Curtis then gave a report based on meetings of the Washington County Planning Directors (who were joined by City Managers Group). They had two goals: 1) to insure that jurisdictions have continuing information on the status of the 2040 study and provide a local forum for discussion of the issues; 2) as local governments, build a County-wide consensus on a Preferred Alternative.

He recommends that the Public Officials Caucus meet again in the fall after the Metro Exec's Preferred Alternative is presented.

He suggested that the Wash. Co. Transportation Coordinating Committee monitor the development of the preferred alternative. (Per Brent, they have agreed to expand beyond transportation into land use.)

Wash. Co. Planners (w/attendance of Metro, ODOT and Tri-Met reps.) had set a goal of developing their own preferred alternative, but haven't gotten that far. However, they do have a list of SERIOUS issues that are outstanding:

- 1) More modeling must be done (moving from "blue sky" to more realistic expectations).
- 2) How much land should really be added; need to know how current land will be used--densities and redevelopment.

- 3) How to integrate land use and transportation (jobs/housing balance). Need to look not only regionally, but sub-regionally and neighborhoods.
- 4) Satellite cities: Concern that jobs/housing balance couldn't happen, at least in Wash. Co. Neighboring cities policies are important, but probably not to solve the UGB issue.
- 5) Alternative modes of travel are critical; 10-minute corridors are important. Locate corridors using the land use and THEN add the transit service. Don't make transit presumptions.
- 6) Redevelopment issues are critical; how to do this takes policy decisions by local governments.
- 7) Committed to station community planning.
- 8) Mobility issues: too much emphasis on land use and not enough on transportation solutions. (The concept graphs showing gridlock are NOT acceptable.)
- 9) Redevelopment and Density discussion needs to include an inventory of the current infrastructure. (Peg's notes: I assume this comment relates to the fact that, once you reach capacity of current infrastructure, it's often cheaper to build in undeveloped areas than to tear up developed areas.)
- 10) COST: Need more analysis on costs of each element of final decision.
- 11) Affordable housing is a real issue, especially in Wash. Co.
- 12) On the issue of Greenbelts outside the UGB--how does this play out w/exception lands, etc.?

Cornelius City Councilor: Are you expecting the trend toward more service jobs to continue and how did you integrate the type of jobs into the study? John: Didn't plan exactly the type of job. However, we had to consider retail jobs in order to model transportation. Andy: Economists did do some analysis, but are unwilling to go beyond 20 years.

Cornelius City Councilor: ? to County Planning Group--did you look at our existing rail lines in West County as a transportation solution? Brent: Didn't look beyond Metro's study elements. Need to look at all solutions when we do the Regional Transportation Plan.

Cornelius City Councilor: We have an extreme interest in transportation issues--we are a community of 6,000+, but we have 35,000 cars pass through every day--going BOTH directions. We have affordable housing, but no jobs. Again, she advocated for use of rail lines which are already in place.

Walt Hitchcock, Mayor of Sherwood: Concerned about the jobs/housing balance idea--how workable/realistic is it?

Tualatin City Council: Tualatin HAS a jobs/housing balance.

Richard Kidd, Forest Grove Mayor: FG is working on a balanced program; he supports continuing the dialogue w/planning directors. He's concerned about schoolbook solutions; specific communities within Metro have differing needs. (He supports a whole package of Preferred Alternatives--based on individual community assets and needs.) Mayors in his region get together to discuss issues. FG's development code is progressive; however, FG's unique needs w/large numbers of historical housing and need for affordable college student housing AND because we have the service capacity to expand, should be allowed to expand the UGB in our area. He also asked that Metro consider the commuters going in BOTH directions--they do even in FG. He suggested that Metro's greatest service would be to help us with the Framework Plan--that's what local gov'ts will need to implement.



Tigard City Councilor: Please respect our individuality; we have our own values. John: What we're trying to do is define the REGIONAL issues, while allowing/encouraging individuality. Preferred alternative will give basic performance standards.

Evelyn Breczinski, Beaverton City Councilor: What's Metro's degree of involvement with the neighbor cities? John: Canby and Sandy are working closely with us. Sandy did Visioning and Urban Reserves. North Plains has talked to us, but are working more closely w/Wash. Co. Metro has talked to Newberg. Scappoose and Estacada: haven't talked. Terry Moore, Metro Councilor: Each Councilor has taken a neighbor city to liaison (she has Newberg—"Come over Rex Hill at your peril!")

Commissioner Linda Peters: What's happening to involve people in specific areas--beyond station community planning? How can we involve small community groups? Cornelius Councilor: We had a Town Hall meeting--including farmers outside the UGB. Councilor Moore: Can't do regional planning at the neighborhood level--BUT NEIGHBORHOODS SHOULD DO NEIGHBORHOOD PLANNING that incorporate regional goals. Neighborhoods should be discussing how these regional ideas play out in their neighborhoods. She talked about working w/her neighbors in Garden Home and w/the Downtown Beaverton Task Force. Councilor McLain: Open Houses have included breakout sessions on this very idea with GREAT discussions.

Forrest Soth, Beaverton City Councilor: Has there been active solicitation of owners of property, especially those whose future might change based on this planning? Calthorpe's ideas are lacking in financial support. Councilor McLain: Mentioned Future Vision and that FVC is willing to take on a discussion of governance and financing. John: We are looking at pragmatic solutions.

Tualatin City Councilor: Again mentioned the obvious problem between affordable housing and reducing land inventory.

Meeting adjourned w/Metro Councilors inviting local government officials to call--to meet to talk about these and other issues. I was allowed about 2 minutes to let them know that Future Vision exists and that they would be receiving our June 14th draft w/the Concepts Report and invited their input.

# Workers commute electronically

By Meredith Dunn  
For The Bulletin/Gazette-Times

CORVALLIS — In one room of his converted garage, Gary Oakley keeps his Macintosh computer, fax machine and photocopier.

In the next, Oakley keeps his flock of ducks.

In the morning, he phones and faxes to northwestern cities, selling stainless steel tubing and fishing lures.

In the afternoon, he tends the chickens, bees and vegetables on his four acres of hillside property.

Oakley isn't alone as a telecommuter; an estimated 7 million people nationwide work with computers at home.

And he's among a growing number using the technology from rural homes instead of city settings.

Last April's issues of UPSIDE, a national computer magazine, documented the flight from the Silicon Valley (and other urban centers) to the "Virtual Valley," a community of telecommuters living elsewhere.

Oakley, 31, remarked, "I could just as easily live up in the mountains someplace. All I need is UPS, a fax and a computer."

Just outside his home office, the view opens to fir forests and mountaintops.

"We looked all over Washington and Oregon and Idaho for towns that suited us, and we chose Corvallis," he said.

Oakley started telecommuting two years ago, when he and his family moved from Colorado Springs.

Across the mountain from Oakley, a fellow commuter lives on Cardwell Hill.

Verna Knapp develops business software for a Portland company, communicating through electronic mail, phone and fax.

Telecommuting from her 23 acres has proven more efficient than working in her Portland office.

"I was complaining about not having enough time to get my work done because everybody was interrupting me," said Knapp, 51.

Knapp's boss suggested she try telecommuting, but asks her to work in Portland two days a week.

"Most of my work can be done from home, but people believe in meetings. You know how that is," she said.

Both Knapp and Oakley cite telecommuting's central benefit: saving time.

When Knapp works from home, she doesn't waste four hours a day driving.

Oakley manages to work short—six-hour days.

"I can crank out some great work and get enough done that I can go outside," he said.

The lifestyle requires discipline.

Oakley works in an office sep-



AP photo

Gary Oakley of Corvallis uses his computer to operate his business out of his home

arate from the house, and he sticks to his desk from about 9 a.m. to 3 p.m.

"When I come back into the house, it kind of disrupts things," he said.

Knapp avoids her refrigerator, and keeps the radio and television silent.

"I'm nowhere near the kitchen, otherwise I'd get fat," she said.

Telecommuting "is for the experienced worker who is very responsible," she said.

It's not for those who like having friends at work, she added.

"If a person is highly sociable, they will get lonely at home," Knapp said.

She makes up for her work-time isolation with an active evening social life.

Another potential drawback, Knapp said, is that telecommuting keeps workers out of office politics.

To head off potential sniping from colleagues, Knapp drives to Portland for office birthdays.

"So people don't feel like I'm snubbing them," she said.

While telecommuting isn't for everyone, Knapp, Oakley and the experts predict it will expand.

According to analysts, the number of telecommuters is expected to grow to 10 million by the year 2000.

"It helps employers keep their employees," Knapp said.

"Even when I'm thoroughly angry with my boss, I'd think three or four times before I'd leave because telecommuting is a valuable perk for me."

Oakley wonders how long his urban, non-telecommuting friends will last.

He cites his friends in New York, a couple who spend hours a day battling traffic jams, then \$800 a month on day care.

"As time goes on and cities get bigger, people may stop and think, 'We've got to go back and re-evaluate,'" he said.

"It's not necessarily worth it to live in that rat race."

2040

EDUCATIONAL VISIONING  
STATEMENT

July 11, 1994

**THE 2040 EDUCATIONAL VISIONING COMMITTEE**

**Committee Chair**

Dr. Nancy Wilgenbusch, President  
Marylhurst College

**Committee Members**

Dr. Larry Large, Vice Chancellor for Public Affairs  
Oregon State System of Higher Education

Dr. Steven S. Koblik, President  
Reed College

Dr. Peter Kohler, President  
Oregon Health Sciences University

Dr. Judith Ramaley, President  
Portland State University

Dr. Dwight A. Sangrey, President  
Oregon Graduate Institute

Dr. Edward F. Stevens, President  
George Fox College

## HIGHER EDUCATION: A CATALYST FOR THE 2040 VISION

A vision is a purposeful dream. It's a dream with substance, with dimension, and with intentionality. A vision for our community in 2040 has to be compelling; it has to pull us to passionate and resolute action. And it must reveal our hearts as confidently as it demonstrates our best thinking.

Vision-making is serious business. Out of it emanates the strands of intent around which policy and strategy are subsequently wrapped. This documented vision for the Metro community necessarily includes reflections about higher education because learning and knowledge support all meaningful action that will determine our future and the future of our children.

This region is a special place in the geography and sociology of America. The extraordinary quality of life experienced today is possible because of the strategies and actions of people who had pursued their earlier dreams. Education, as essential as it was to them, will be increasingly critical to our community in the future. Education supports all elements of the community. As Aristotle has so eloquently pointed out, the fate of empires depends on the education of its people.

Higher education, as a critical segment in an overall process of lifelong learning, is a catalyst in the quality of life equation. Higher education prepares citizens and professionals who are needed to direct and support the development of the region. The degree to which we succeed in providing educational opportunities for succeeding generations will determine the extent to which this community retains its quality.

Higher education historically has been a full partner in the realization of dreams. As early as our new found independence as a sovereign country, one patriot leader predicted that "colleges would be nurseries of wise and good men to adapt our modes of teaching to the peculiar form of government" (American Education: The National Experience 1783-1876, pp. 116). Then colleges and universities had as their primary goal the training of new leadership necessary for a fledging country. Later, in the nineteenth century, students of the New World came to college from increasingly diverse backgrounds to learn increasingly diverse curricula. The classical curricula expanded to embrace the emergence of the new science created by economic expansion, culminating in the historical Land Grant Act of 1862, which acknowledged the rightful place of practical arts in the university experience. The twentieth century brought unprecedented change to American higher education. As new cultures flooded the country, brought on the backs of immigrants, higher education responded again by the further opening of its embrace. Foreign languages, science, mathematics and sociological studies joined the classics as important parts of the collegiate palette. Then, after World War II, the G.I. Bill forever and radically altered the face of American higher education as millions of non-traditional learners and first generation college students marched onto campuses. Once again, curricula and methodologies were altered to accommodate the emerging needs.

Since the G.I. Bill, higher education has continued to respond to the challenges faced by our community. By providing a variety of institutional types with differing missions, including technical education at the community colleges and research and graduate education at the other end of the educa-

tional continuum, higher education has been a dedicated partner in developing the quality of life we cherish in our community.

As important as education has been in the past, education will matter even more in the future. Crucial changes will occur in our community by the year 2040. These include:

1. Portland will have greater ties to the global economy. In fact, Portland's economy will be increasingly linked through transnational companies to economic expansion in Asia and the Pacific rim.
2. Portland's population will be larger, older, and more diverse. Like the rest of the United States, Portland will become more ethnically and racially diverse, and the population will age as baby boomers enter their elder years by the year 2040. Portland will continue to experience rapid population growth.
3. High value jobs will require higher levels of education. More high paying, high value jobs will require at least some college education; in general, retaining good jobs will mean continuing education, ongoing training, or recertification.
4. University research in key areas will help create jobs. Research in key areas like new energy sources, pollution-free industries, telecommunications, new materials development, bioengineering, medicine, and computers will be at the heart of creating the jobs Portland's citizens want.
5. Portland's extraordinary assets will be preserved by a caring citizenry. Portland's tangible assets, like its awesome physical beauty, as well as its intangible assets, like the involvement of its citizens, will keep the region a desirable place to live and to work.

6. Since 1980 the distance between the "haves" and "have nots" in America has increased dramatically; this trend will have to be reversed if social and economic vigor is to be maintained.
7. The political and economic conditions of the next century will require a greater number of intellectually agile citizens to take roles in an ever changing work force and in the political and social institutions of the country.

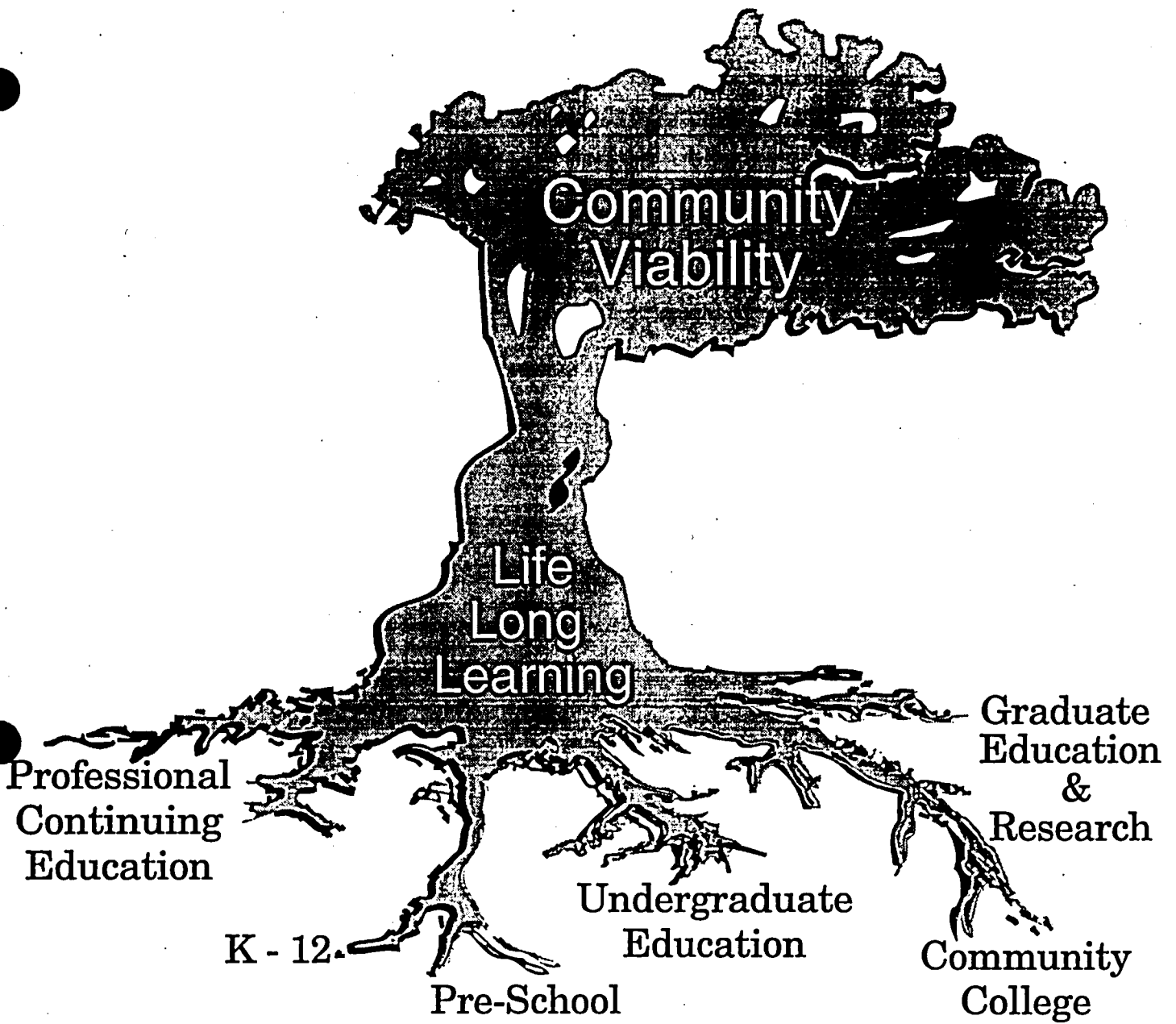
As the changes which will occur in the region become increasingly clear, the ways in which higher education needs to restructure also become apparent.

1. *Higher education must assume new responsibilities and functions to create an integrated system of lifelong educational services from pre-kindergarten through continuing education.*

Educators at all levels have a unique opportunity to use their institutions and their human resources to create a network of affordable and accessible learning opportunities for citizens of all ages. Building on current joint ventures, Portland's educational community can continue to create the most effective learning alliance in the nation. This system, built on the special strengths of each school, is the best way for Portland's citizens to get the education they need and want, at a cost they can afford.

When we achieve this aspect of our vision, we will have created a new educational asset which will make a lasting contribution to the quality of life in Portland.





2. *In the next forty years, Portland can become an intellectual port and global city where information is a product created here and exported around the world. For us to realize this daring vision ...*

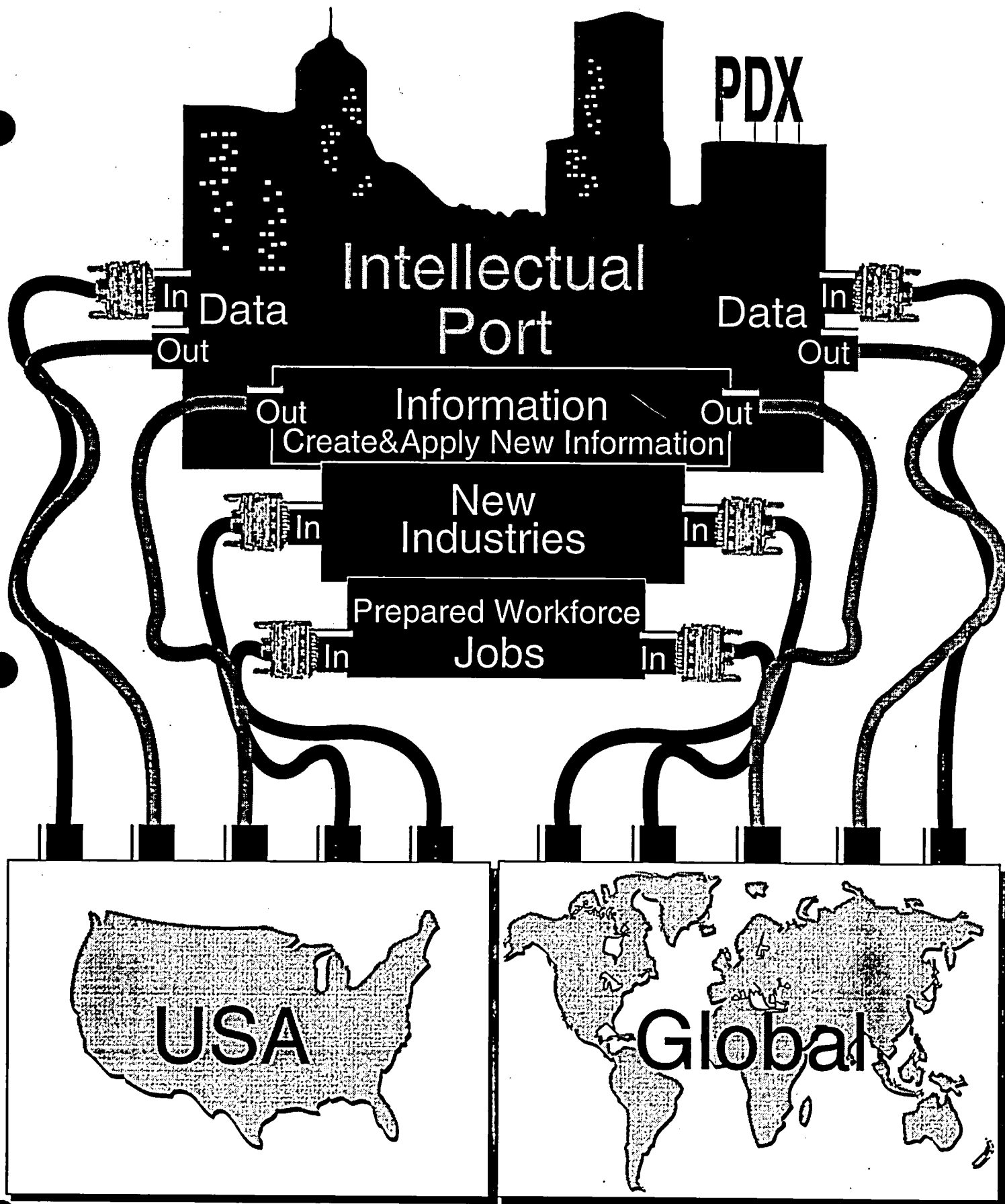
**Education will have to**

- o become an integral part of the business ecosystem;
- o assist citizens to become effective in a transnational economy by providing opportunities to learn foreign languages; to develop multicultural perspectives; and to understand economics at the transnational level;
- o assume a catalytic role in the creation of lasting partnerships with business, resulting in ongoing job creation and economic growth;
- o expand the basic and applied research capabilities essential in the creation of knowledge which in turn stimulates new, local business activity;
- o provide opportunities for lifelong learning.

**Education will have to be supported by**

- o easily and widely accessible information available through the barrier-free interactivity of a world class regional library system and its local partners;
- o a competitive educational infrastructure, including state-of-the-art technology.

Achieving this aspect of our vision will demonstrate the results of working collaboratively toward an attainable future of shared economic benefits.



3. *We believe educational institutions should shift from the governance of compliance to a new model of governance grounded in cooperation, mutual respect, and interdependence. Underlying this portion of our vision are common sense principles.*

- o Education in the Metro region should become increasingly decentralized. The more variety we have among institutions, the better are our odds of responding to the diverse needs of a growing population.
- o Institutional diversity must be protected so schools can meet their historical missions and experiment, if they choose, with new community-related projects.
- o Colleges and universities serve the community most effectively and most efficiently when they share responsibility, resources, and authority voluntarily.
- o Policy makers and community leaders can promote cooperation among institutions by keeping institutions fully aware of community needs and providing incentives to influence the directions Portland colleges and universities take.

Although jurisdictional lines currently impede inter-institutional cooperation, educators across the region share deep and enduring values. If our vision of the governance of cooperation can be achieved any where, it is in Portland where people listen to one another, value dedicated leadership, and accept consensus decision making.

4. *We believe higher education needs to restructure the way it operates financially.*

- o As increasing pressures on limited general funds continue, higher education will need to become more accountable for the quality and price of its processes (and products). Educational systems will need to eliminate redundancy, each sector specializing along competency-based lines.
- o Private sector money will need to be a major part of higher education's budgets. Strategic, interdependent partnerships will need to be a significant part of education's long-range plans.
- o In an industry where 80% of the expenditures are personnel costs, creative means will need to be found to decrease the cost of delivering educational services while maintaining quality.
- o The increasing emphasis on federal investments in applied research and advanced technology and on basic research related to potential industrial development will require Oregon to continue to develop joint scientific and engineering programs that draw upon the distinctive strengths of all its universities in order to offer sufficient expertise and quality to attract grants and contracts.
- o As higher education becomes increasingly critical for job preparation in the twenty-first century, financial support for its systems will need to increase as a percentage of Gross National Product.

Achieving this restructuring in the way we do business may be the biggest challenge the Portland educational community faces, but realizing this aspect of our vision will restore the credibility of our enterprise.

Until now, Metro has concentrated on what we can see, for example, highways, air quality, and green space, but we believe it is a logical extension for Metro to support the intangible asset of education. We envision a number of roles Metro could play.

- o Metro can be a central collection point for information about the educational needs of the regional community and assist the community in establishing educational priorities.
- o Metro can assist educational institutions in their attempts to work cooperatively by convening and facilitating cross-jurisdictional forums to address community priorities.
- o Metro can help fund the educational infrastructure which nourishes the quality of life in the region. In some instances, Metro can help raise funds to incubate new ideas which are especially relevant to solving community problems. And Metro can assist in maintaining a baseline of resources when the educational needs of the region are not met through more familiar sources.
- o Metro, which crosses jurisdictional lines, can serve as an informational conduit articulating community needs to education and, conversely, communicating education's capacities and capabilities to the region.

Ultimately, our vision rests on one simple premise. As Portland experiences inexorable growth and change in the next fifty years, education has an obligation, not just to keep pace with new conditions, but to take a leadership position and give voice to a vision we can actively support. Now, we are eager to hear the community's response to our key elements:

- o Creating an integrated system of all educational institutions in the tri-county region;
- o Seeing Portland become an intellectual port and a global city;
- o Choosing a model of governance based on cooperation, not compliance; and
- o Restructuring the ways higher education is financed.

We have taken vision making seriously for we know that the chance to chart a new direction comes very rarely. For this opportunity, we are grateful.

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7 Mon June 27, 1994

8 To: Members of the Future Vision Commission  
9 From: Bob Textor  
10 Re: Contextualizing the Future Vision Statement

11 Dear Colleagues:

12 Our Future Vision Statement, like any, will be incomplete  
13 unless it takes highly probable future context into explicit  
14 account. It doesn't need to spend thousands of words describing  
15 this context in exquisite detail, but it does need to be written  
16 with an awareness of this context, and this awareness must be  
17 evident to sophisticated readers, who otherwise might find our  
18 document unacceptable.

19 Example: science and technology have already given us such  
20 "infotech" innovations as the personal computer and the fiber  
21 optic cable. Within five to ten years infotech will almost  
22 certainly give us the capability for any two persons, anywhere,  
23 anytime, to communicate with each other -- by pager, voice, fax,  
24 or data -- without either knowing where on Earth the other is.  
25 The technology for this service is in hand, and the business  
26 organization for it is going forward rapidly.

27 These capabilities are clearly a part of the future context  
28 of life in the Metro Region. There is little doubt that they  
29 will exist and will be used. However, how they will be used is a  
30 separate question. These capabilities present opportunities, but  
31 also dangers. One of the responsibilities of any group like ours



32 is to envision, in broad terms, ways to seize the opportunities  
33 in a socially positive way, and to minimize the dangers.

34 Thus, in my judgment our Vision Statement has to say  
35 something about infotech. We might choose to say it succinctly,  
36 e.g. something as brief as:

37 ♦ public policy will provide educational opportunities  
38 for our people to take full advantage of the new information  
39 technology in developing good jobs in the global marketplace; and

40 ♦ telecommuting will be encouraged as one means of  
41 reducing congestion and pollution.

42 Alternatively, we might choose to go a bit further and say  
43 something about a vision in which government, education,  
44 business, industry, and civic organizations collaborate to make  
45 the Metro Region a world-class infotech center.

46 The point is, though, that in this case we need to say  
47 something that is reasonable, and clearly so. Otherwise, a  
48 thousand infotech specialists working for our local electronics  
49 industries and businesses are going to think that we are naive,  
50 and, accordingly, discount everything else we have to say.

51 Having said the above, let me now enter a general caveat  
52 about technology in general. As we say whatever we decide to say  
53 about technological context, it is important that our vision not  
54 blindly or carelessly depend on technological innovations that  
55 have yet to emerge adequately. This could amount to a cop-out,  
56 or a form of denial. Example: when I visited the Citizen Input  
57 session at Tualatin High School last week, one highly vocal  
58 citizen stressed the need for several new freeways, adding  
59 casually that in a few years we would all be driving electric  
60 cars, so that air pollution would not be a problem. Personally,  
61 and subject to correction, I believe that electric cars will  
62 become at least fairly common at some point during the next fifty  
63 years -- but quite possibly later than some people think. We  
64 should not, in my opinion, simply assume that this innovation  
65 will quickly come to our rescue. Rather, we should visualize

66 decent management of congestion and air pollution without  
67 depending heavily on assumptions about the electric car. Then,  
68 as history unfolds, if the electric car does become common fairly  
69 soon, so much the better.

70 One way to take future context into account is to look at a  
71 list of carefully developed assumptions about that context.  
72 Attached is a short article that contains 83 such succinctly-  
73 expressed assumptions about what life in the world will be like  
74 approximately midway through our visualization period. Some of  
75 these assumptions might be useful to us. The author of the  
76 article is Joseph Coates, a respected futurist and consultant  
77 with a scientific and public policy background.

78 Cheers,

BA

79 Incl: 7 pages of  
80 Coates article.

# *The* HIGHLY PROBABLE FUTURE

## *83 Assumptions about the Year 2025*

*By Joseph F. Coates*

**Before we can plan the future, we must make some assumptions about what that future will be like. This inventory of "highly probable" futures, developed by Coates & Jarratt, Inc., provides a foundation for getting started.**

Assumptions about the future are not like assumptions in a geometry exercise. They are not abstract statements from which consequences can be derived with mathematical precision. But we need to make *some* assumptions about the future in order to plan it, prepare for it, and prevent undesired events from happening.

The following 83 statements about the year 2025 were developed for Project 2025: Anticipating Developments in Science and Technology and Their Implications for the Corporation, sponsored by 18 large organizations in the United States and Europe. The project's goal is to explore how science and technology are likely to reshape society over the next three decades.

Some are assumptions drawn from the project. Others, such as the estimates of future population, come from public or highly credible private statistical and mathematical analyses of trends. Still others result from integrating a wide

range of material; one such assumption is that we will be moving toward a totally managed globe. To present the underlying arguments supporting each of these highly reliable statements (which amount to forecasts) would require a massive report. We have, therefore, presented these statements about the future as simply and in as straightforward a manner as possible.

A few of these assumptions have a normative, or goals-oriented, aspect to them. The assumption, for example, that per capita energy consumption in the advanced nations will fall to 66% of the 1990 level is definitely not a trend extrapolation but a judgment about the confluence of social, political, economic, environmental, technological, and other concerns. Readers are urged to formulate and review alternatives that might characterize the next 30 years and test how those alternatives affect any other thoughts, concepts, beliefs, or conclusions about the future.

What follows is an inventory of high-probability statements about the year 2025 in two categories:

A. Scientific discoveries and research and technological developments and applications.

B. Contextual, that is, those factors forming the social, economic, political, military, environmental, and other factors that will shape or influence scientific and technological developments. These contextual areas form the environment for the introduction and maturation of new products, processes, and services in society.

These high-probability assumptions are the underpinnings to understanding how any particular area may develop under the influence of new scientific, technological, social, political, or economic developments.

It would be nice to suggest that these developments are inevitable, but few developments are. Nonetheless, the convergence of evidence indicates that these developments are of such high likelihood that they form an intellectual substructure for thinking about the year 2025.

# Science and Technology IN THE YEAR 2025

## Managing Our World

1. Movement toward a totally managed environment will have proceeded substantially at national and global levels.

Oceans, forests, grasslands, and water supplies make up major areas of the managed environment. Macroengineering—planetary-scale civil works—will make up another element of that managed environment. Finally, the more-traditional business and industrial infrastructure—telecommunications, manufacturing facilities, chemical plants, electric-generating facilities, and so on—will be a part of managed systems and subsystems.

Note that total management does not imply full understanding of what is managed. But expanding knowledge will make this management practical. Total management also does not imply total control over these systems.

2. Everything will be smart—that is, responsive to its external or internal environment. This will be achieved either by embedding microprocessors and associated sensors in physical devices or by creating materials that are responsive to physical variables such as light, heat, noise, odors, and electromagnetic fields, or by a combination of these two strategies.

Amid maps and monitors, a British Telecom network manager gets up-to-the-minute information on worldwide telephone network. The world and all its systems—natural and manufactured—are increasingly coming under human management. (Assumption 1)

PHOTOS: LONDON PICTURES SERVICE



### Managing Human Health

3. All human diseases and disorders will have their linkages, if any, to the human genome identified. For many diseases and disorders, the intermediate biochemical processes that lead to the expression of the disease or disorder and its interactions with a person's environment and personal history will also have been explicated.

4. In several parts of the world, the understanding of human genetics will lead to explicit programs to enhance people's overall physical and mental abilities—not just prevent diseases.

5. The chemical, physiological, and genetic bases of human behavior will be generally understood. Direct, targeted interventions for disease control and individual human enhancement will be commonplace. Brain-mind manipulation technologies to control or influence emotions, learning, sensory acuity, memory, and other psychological states will be available and in widespread use.

6. In-depth personal medical histories will be on record and under full control of the individual in some form of a medical smart card or disk.

7. More people in advanced countries will be living to their mid-80s while enjoying a healthier, fuller life.

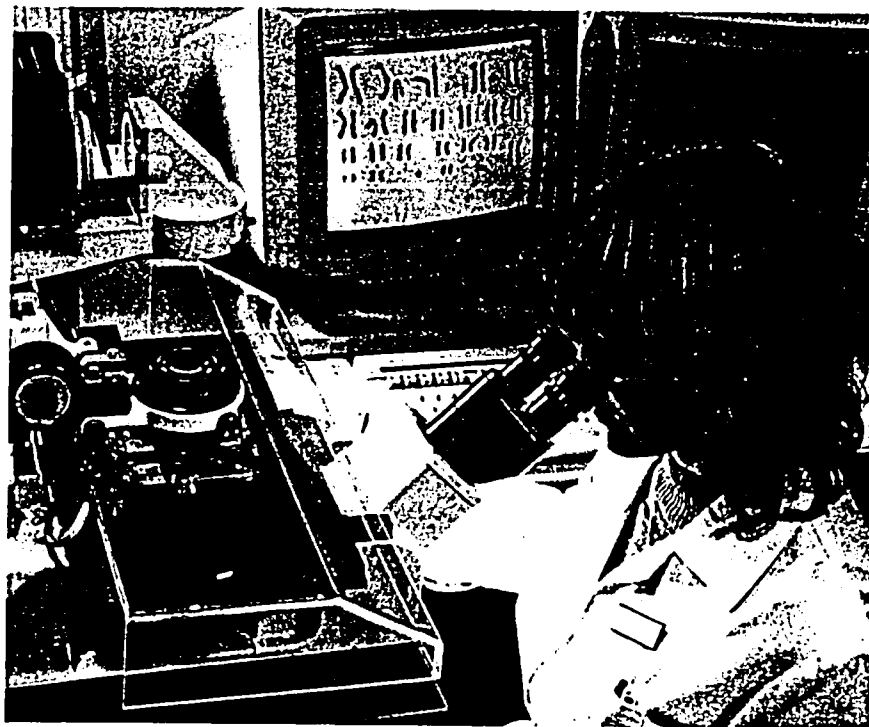
8. Custom-designed drugs such as hormones and neurotransmitters (chemicals that control nerve impulses) will be as safe and effective as those produced naturally within humans or other animals.

9. Prosthesis (synthetic body parts or replacements) with more targeted drug treatments will lead to radical improvements for people who are injured, impaired, or have otherwise degraded physical or physiological capabilities.

### Managing Environment and Resources

10. Scientists will have worked out the genome of prototypical plants and animals, including insects. This will lead to more-refined management, control, and manipulation of their health, propagation, or elimination.

11. New forms of microorganisms, plants, and animals will be common-



Genetic abnormalities in an unborn baby are scanned by medical researcher. All human ailments that have a genetic link will be identified and mapped by 2025. (Assumption 3)

place due to advances in genetic engineering.

12. Foods for human consumption will be more diverse as a result of agricultural genetics. There will be substantially less animal protein in diets in advanced nations, compared with the present. A variety of factors will bring vegetarianism to the fore, including health, environmental, and ethical trends.

13. There will be synthetic and genetically manipulated foods to match each individual consumer's taste, nutritional needs, and medical status. Look for "extra-salty (artificial), low-cholesterol, cancer-busting french fries."

14. Farmers will use synthetic soils, designed to specification, for terrain restoration and to enhance indoor or outdoor agriculture.

15. Genetically engineered microorganisms will do many things. In particular, they will be used in production of some commodity chemicals as well as highly complex chemicals and medicines, vaccines, and drugs. They will be widely used in

agriculture, mining, resource upgrading, waste management, and environmental cleanup.

16. There will be routine genetic programs for enhancing animals used for food production, recreation, and even pets. In less-developed countries, work animals will be improved through these techniques.

17. Remote sensing of the earth will lead to monitoring, assessment, and analysis of events and resources at and below the surface of the earth and ocean. In many places, *in situ* sensor networks will assist in monitoring the environment. Worldwide weather reporting will be routine, detailed, and reliable.

18. Many natural disasters, such as floods, earthquakes, and landslides, will be mitigated, controlled, or prevented.

19. Per capita energy consumption of all types of goods and services in the advanced nations will be at 66% of per capita consumption in 1990.

20. Per capita consumption in the rest of the world will be at 160% of per capita consumption in 1990.



Scientist studies rice's resistance to salt at the University of Sussex in England. New and improved foods will result from genetic manipulation. (Assumption 12)

21. Resource recovery along the lines of recycling, reclamation, and remanufacturing will be routine in all advanced nations. Extraction of virgin materials through mining, logging, and drilling will be dramatically reduced, saving energy and protecting the environment.

22. Restorative agriculture (i.e., "prescription" farming) will be routine. Farmers will design crops and employ more-sophisticated techniques to optimize climate, soil treatments, and plant types.

#### Automation and Infotech

23. There will be a worldwide, broadband network of networks based on fiber optics; other techniques, such as communications satellites, cellular, and microwave will be ancillary. Throughout the advanced nations and the middle class and prosperous crust of the developing world,

face-to-face, voice-to-voice, person-to-data, and data-to-data communication will be available to any place at any time from anywhere.

24. Robots and other automated machinery will be commonplace inside and outside the factory, in agriculture, building and construction, undersea activities, space, mining, and elsewhere.

25. There will be universal, on-line surveys and voting in all the advanced nations. In some jurisdictions, this will include voting in elections for local and national leaders.

26. Ubiquitous availability of computers will facilitate automated control and make continuing performance monitoring and evaluations of physical systems routine.

27. The ability to manipulate materials at the molecular or atomic level will allow manufacturers to customize materials for highly specific functions such as environmental sensing and information processing.

28. Totally automated factories will be common but not universal for a variety of reasons, including the cost and availability of technology and labor conflicts.

29. Virtual-reality technologies will be commonplace for training and recreation and will be a routine part of simulation for all kinds of physical planning and product design.

30. In printed and—to a lesser extent—in voice-to-voice telecommunication, language translation will be effective for restricted but practically significant vocabularies.

31. Expert systems will be developed to the point where the learning of machines, systems, and devices will mimic or surpass human learning. Certain low-level learning will evolve out of situations and experiences, as it does for infants. The toaster will "know" that the person who likes white bread likes it toasted darker, and the person who chooses rye likes it light.



Satellite images of the earth are studied at National Remote Sensing Centre in Hampshire, England. Space-based monitoring of the environment will help us predict the weather as well as mitigate or prevent natural disasters. (Assumptions 17 and 18)

32. The fusion of telecommunications and computation will be complete. We'll use a new vocabulary of communications as we *televote*, *teleshop*, *telework*, and *tele-everything*. We'll *e-mail*, *tube*, or *upload* letters to Mom. We'll go *MUDing* in cyberspace and mind our *netiquette* during virtual encounters.

33. Factory-manufactured housing will be the norm in advanced nations, with prefabricated modular units making housing more flexible as well as more affordable.

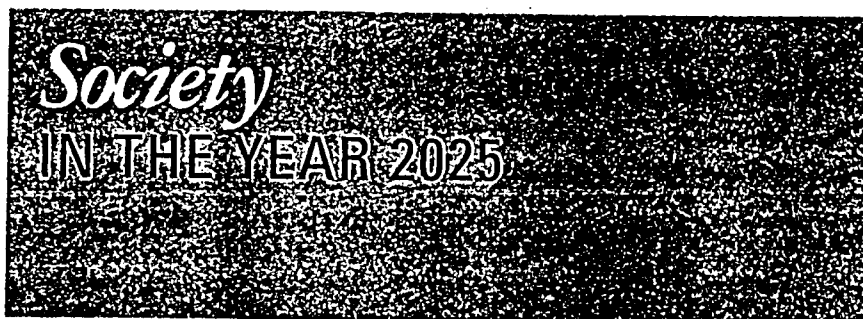
34. In the design of many commercial products such as homes, furnishings, vehicles, and other articles of commerce, the customer will participate directly with the specialist in design.

35. New infrastructures throughout the world will be self-monitoring. Already, some bridges and coliseums have "tilt" sensors to gauge structural stress; magnetic-resonance imaging used in medical testing will also be used to noninvasively examine materials for early signs of damage so preventive maintenance can be employed.

36. Interactive vehicle-highway systems will be widespread, with tens of thousands of miles of highway either so equipped or about to be. Rather than reconstruct highways, engineers may retrofit them with the new technologies.

37. Robotized devices will be a routine part of the space program, effectively integrating with people. Besides the familiar robotic arm used on space shuttles, robots will run facilities in space, operating autonomously where humans are too clumsy or too vulnerable to work effectively.

38. Applied economics will lead to a greater dependency on mathematical models embodied in computers. These models will have expanded capabilities and will routinely integrate environmental and quality-of-life factors into economic calculations. One major problem will be how to measure the economic value of information and knowledge. A Nobel Prize will be granted to the economist who develops an effective theory of the economics of information.



#### Population Trends

39. World population will be about 8.4 billion people.

40. Family size will be below replacement rates in advanced nations but well above replacement rates in the less-developed world.

41. Birth-control technologies will be universally accepted and widely employed, including a market for descendants of RU486.

42. The population of advanced nations will be older, with an average age of 41.

43. The less-developed world will be substantially younger but will have made spotty but significant progress in reducing birth rates. However, the population of these countries will not stop growing until sometime after 2025.

44. The majority of the world's population will be metropolitan, including people living in satellite cities clustered around metropolitan centers.

45. World population will divide into three tiers: at the top, World 1, comprising advanced nations and the world's middle-classes living in prosperity analogous to Germany, the United States, and Japan; at the bottom, World 3, people living in destitution; and in the middle, World 2, a vast range of people living comfortably but not extravagantly in the context of their culture. We use the terms *World 1*, *World 2*, and *World 3* for the emerging pattern of nations that moves us beyond the post-World War II nomenclature.

46. A worldwide middle class will emerge. Its growth in World 2 and to a lesser extent in World 3 will be a powerful force for political and economic stability and for some forms of democracy.

#### Worldwide Tensions

47. There will be worldwide unrest reflecting internal strife, border conflicts, and irredentist movements. But the unrest will have declined substantially after peaking between 1995 and 2010.

48. Under international pressures, the United Nations will effectively take on a *peacemaking* role to complement its historic *peacekeeping* role.

49. Widespread contamination by a nuclear device will have occurred either accidentally or as an act of political/military violence. On a scale of 1 to 10 (with Three Mile Island a 0.5 and Chernobyl a 3), this event will be a 5 or higher.

50. Increasing economic and political instabilities will deter business involvement in specific World 3 countries.

51. Despite technological advances, epidemics and mass starvation will be common occurrences in World 3 because of strained resources in some areas and politically motivated disruptions in others.

52. Supranational government will become prominent and effective, though not completely, with regard to environmental issues, war, narcotics, design and location of business facilities, regulation of global business, disease prevention, workers' rights, and business practices.

53. There will be substantial environmental degradation, especially in World 3. Governments will commit money to ease and correct the problem, but many will sacrifice long-term programs that will prevent the problems from happening in the first place.

54. There will be shifts in the pattern of world debtor and creditor



National decisions will be influenced by electronically assisted referenda.

64. Throughout the advanced nations, people will be computer literate and computer dependent.

65. Worldwide, there will be countless virtual communities based on electronic linkages.

66. There will be a worldwide popular culture. The elements of that culture will flow in all directions, from country to country. In spite of the trend toward "demassification" in both information and production, the global links of communications and trade will ensure that ideas and products will be *available* to all, whether they like it or not.

67. The multinational corporation will be the world's dominant business form.

68. Economic blocs will be a prominent part of the international economy, with many products and commodities moving between these porous blocs. The principal blocs will be Europe, East Asia, and the Americas.

69. Universal monitoring of busi-



