

El Sueño de la Máquina Universal (y la Guerra del Navegador)

Por:

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Manuel Urbano Santos

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Capítulo I

Java: la máquina Universal



Pequeña historia previa



- 1990: James Gosling (Sun Microsystems) diseña un lenguaje orientado a dispositivos electrónicos, Oak, que solventara la variedad en las especificaciones de éstos.
- Tras varios proyectos (Green, VOD,...), Oak cae en el olvido, al no encontrársele más aplicación.



Pequeña historia previa



- Bill Joy vio en Internet un campo adecuado para arrebatarse a Microsoft la primacía en el terreno del software. Descubrió que Oak, con varias modificaciones de diseño, resultaba idóneo. A partir de él, se realiza Java, que fue presentado en Agosto de 1995.
- Las características de ejecución segura y confinamiento, hacen a Java idóneo para Internet. Su sencillez permite integrarlo en los navegadores, lo cual permite que el código de Java pueda ser ejecutado universalmente (WORA).

Filosofía



- El objetivo principal de Java es la portabilidad absoluta.
- W.O.R.A.:

ESCRÍBELO

UNA

VEZ

EJECÚTALO

DONDE

TE DÉ

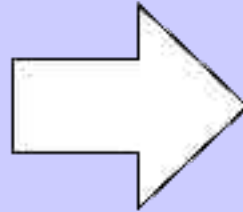
LA GANA

Compilación/Ejecución Clásica

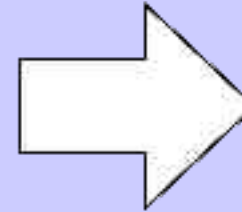


```
String codu = "codigo"  
  
while( c < j ){  
    ob?.raiv111  
    a = ob?.getC1111  
    ++j  
}  
  
if( c == d){  
    ++j  
else  
    ++j
```

Código fuente



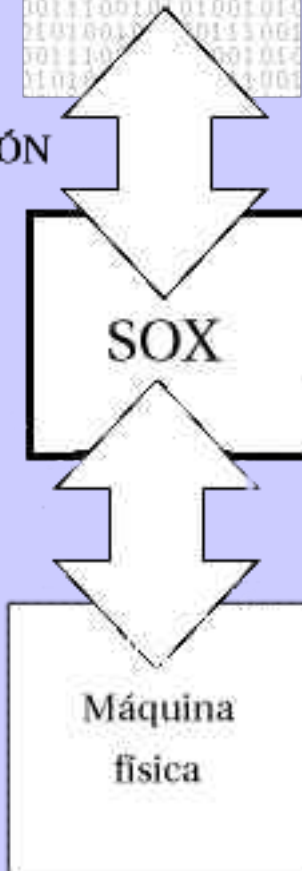
COMPILADOR
SOX



```
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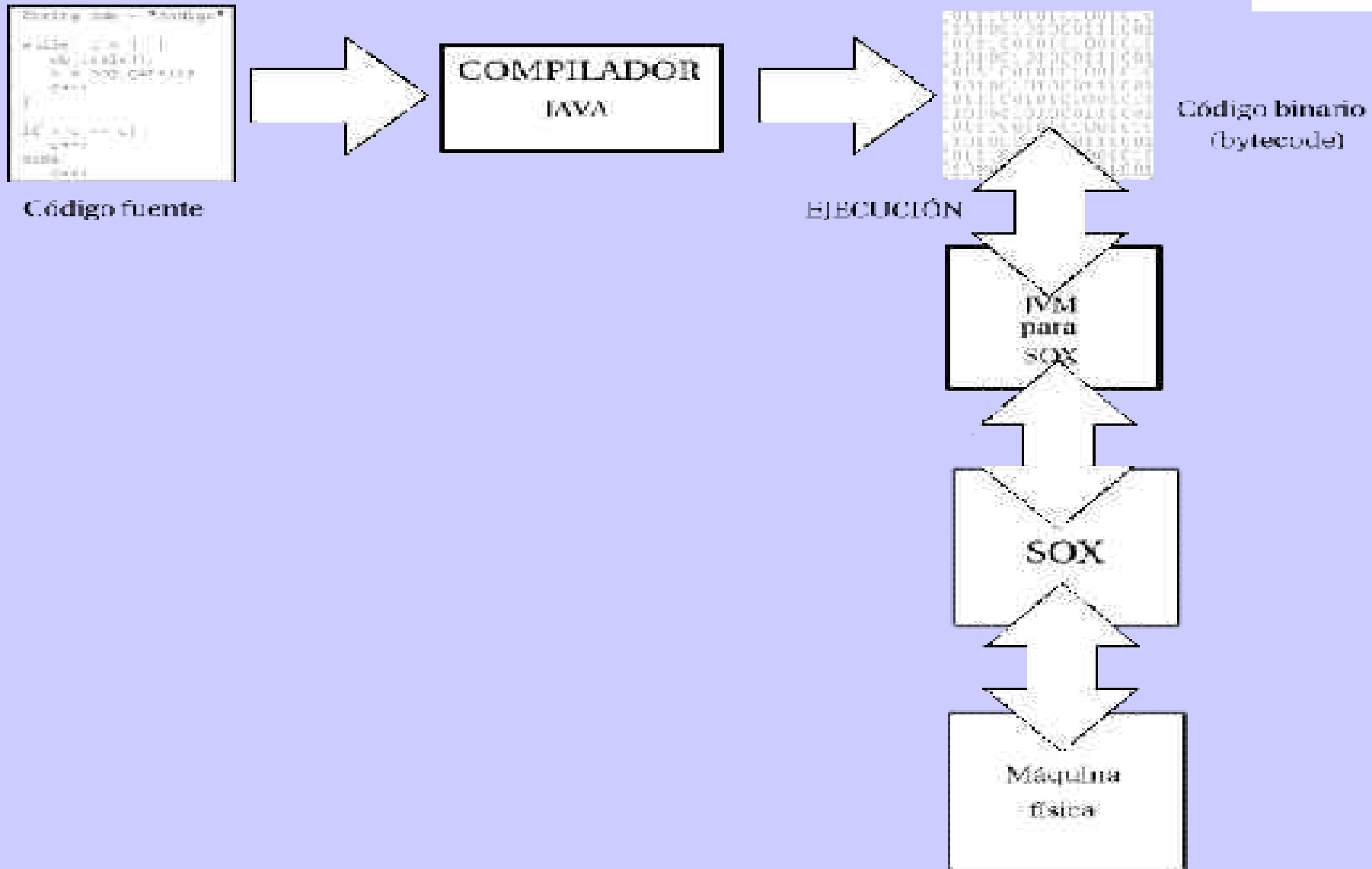
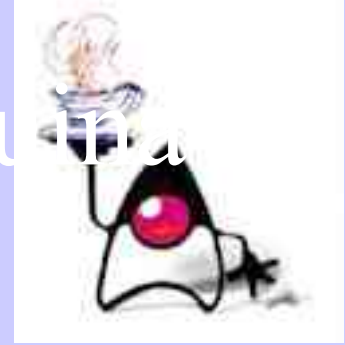
Código binario
nativo

EJECUCIÓN



Máquina
física

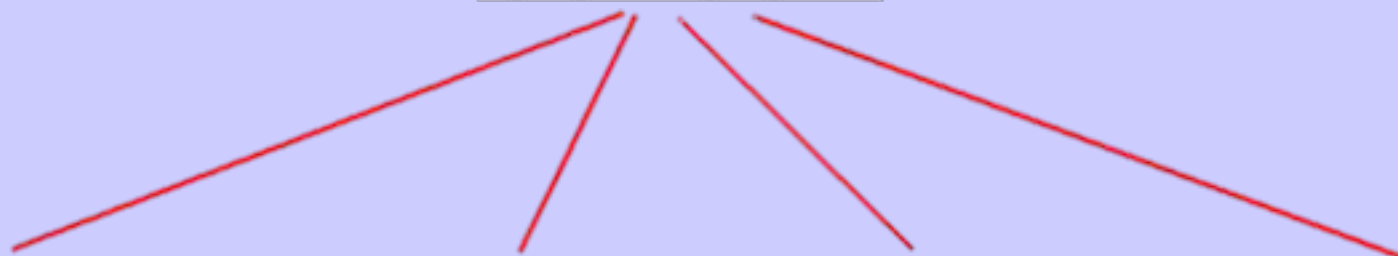
Compilación/Ejecución con Máquina Virtual



WORA funcionando



bytecode



JVM
GNU/Linux

JVM
MacOS

JVM
BSD

JVM
Win32

GNU/Linux

MacOS

BSD

Win32

...

...

Apoyos de Java



- Sun recibe el apoyo de cientos de empresas, que ven la grandísima utilidad de la compatibilidad entre plataformas.
- Muchas invierten en Sun. Otras implementan los estándares Java.
- IBM, Oracle, Compaq, AOL, Motorola, LG Electronics, Philips, Samsung, Sony, Toshiba, 3Com, ...
- ¿¿Todas??

Capítulo II

Historia de Netscape: el esplendor



NCSA X Mosaic 2.7b5 [Untitled http://www.linux-magazin.de/ausgabe/2000/02/D...

File Options Navigate Annotate News Help



URL: <http://www.linux-magazin.de/ausgabe/2000/02/DeskTOPia/des-ct>



Orígenes de la Navegación Web

- El primer navegador, llamado WorldWideWeb, se publicó en 1991 para NeXT. Le siguieron varios navegadores en modo texto, siendo lynx uno de los más populares.
- En 1993, en pleno proceso de popularización de Internet, el NCSA realiza Mosaic, el primer programa que da una interfaz multimedia a Internet.

El auge de Netscape

- **El líder del equipo que creó Mosaic, Marc Andreessen, junto con Jim Clark de Silicon Graphics, piensan en sacar beneficio de Mosaic, y fundan la Mosaic Communication Corporation, que tiene que renombrarse como Netscape Communication Corporation.**



La conquista de “los mares”

- **Netscape Navigator triunfa espectacularmente. Se convierte en el navegador líder indesafiado, con el 90% del mercado.**
- **Como líder, Netscape introduce cambios en la web de manera unilateral. A pesar de esto, los cambios llegan a ser reconocidos como estándares del W3C y el ECMA, y son emulados por otros navegadores.**
- **Netscape decide incluir dentro de su producto una máquina virtual de Java para poder ejecutar aplicaciones remotas de manera segura. Esta decisión sería su sentencia de muerte.**

Capítulo III: El Imperio Contraataca



Windows ^{xp}

El círculo vicioso

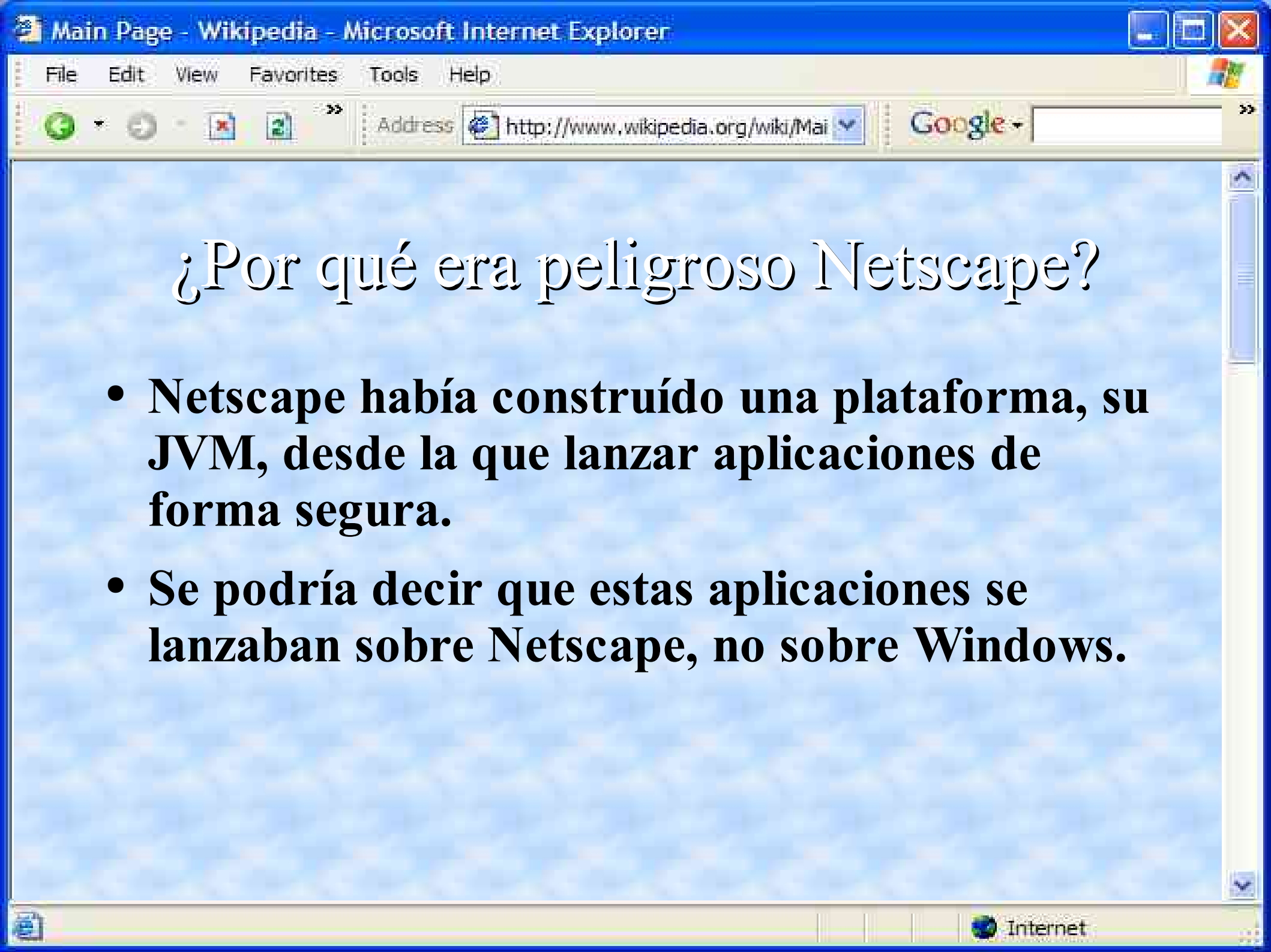
Usuarios:

Tienen que utilizar Windows porque la mayoría de las aplicaciones sólo están disponibles para ese Sistema Operativo.



Desarrolladores:

Tienen que programar para Windows, porque es el sistema operativo de prácticamente la totalidad de los usuarios.



¿Por qué era peligroso Netscape?

- **Netscape había construido una plataforma, su JVM, desde la que lanzar aplicaciones de forma segura.**
- **Se podría decir que estas aplicaciones se lanzaban sobre Netscape, no sobre Windows.**

Aplicación

Win32

PC

Aplicación

JVM

Netscape

Win32

PC

Aplicación

JVM

Netscape

GNU/Linux

PC

Aplicación

JVM

Netscape

*BSD

PC

Aplicación

JVM

Netscape

MacOS

Power PC

Aplicación

JVM

Netscape

Solaris

Sparc

Aplicación

JVM

Netscape

GNU/Linux

Sparc

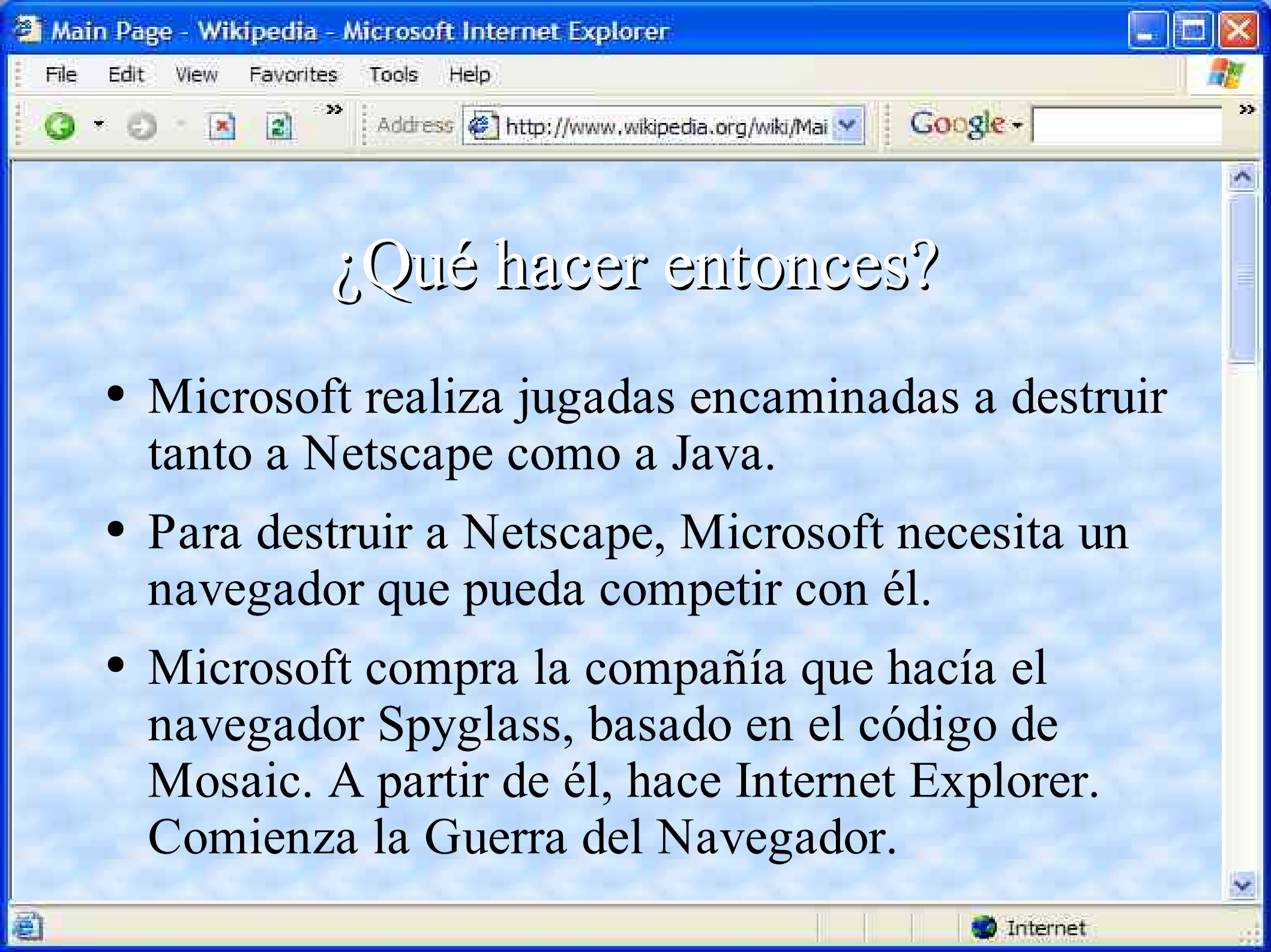
Aplicación

JVM

Netscape

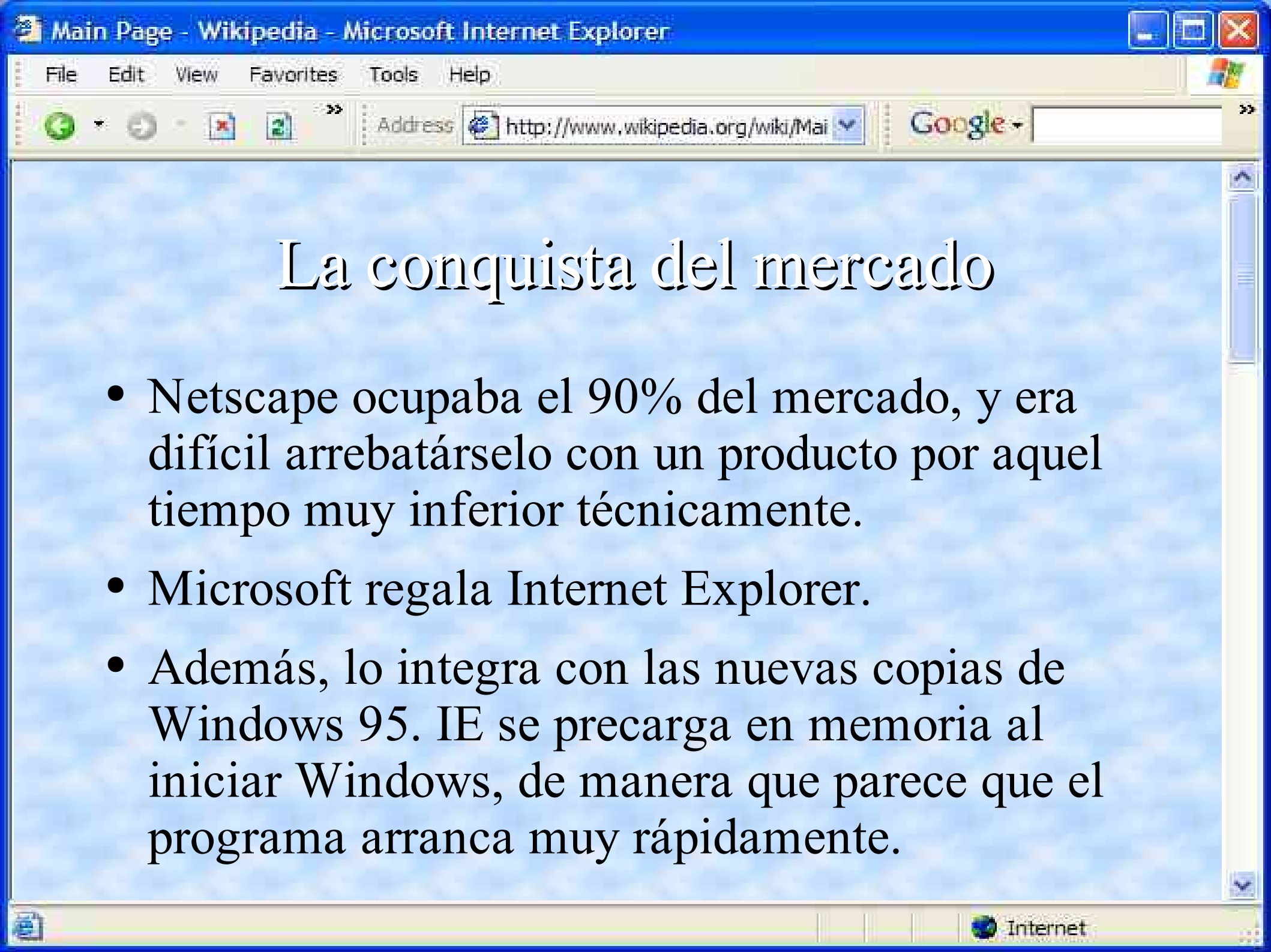
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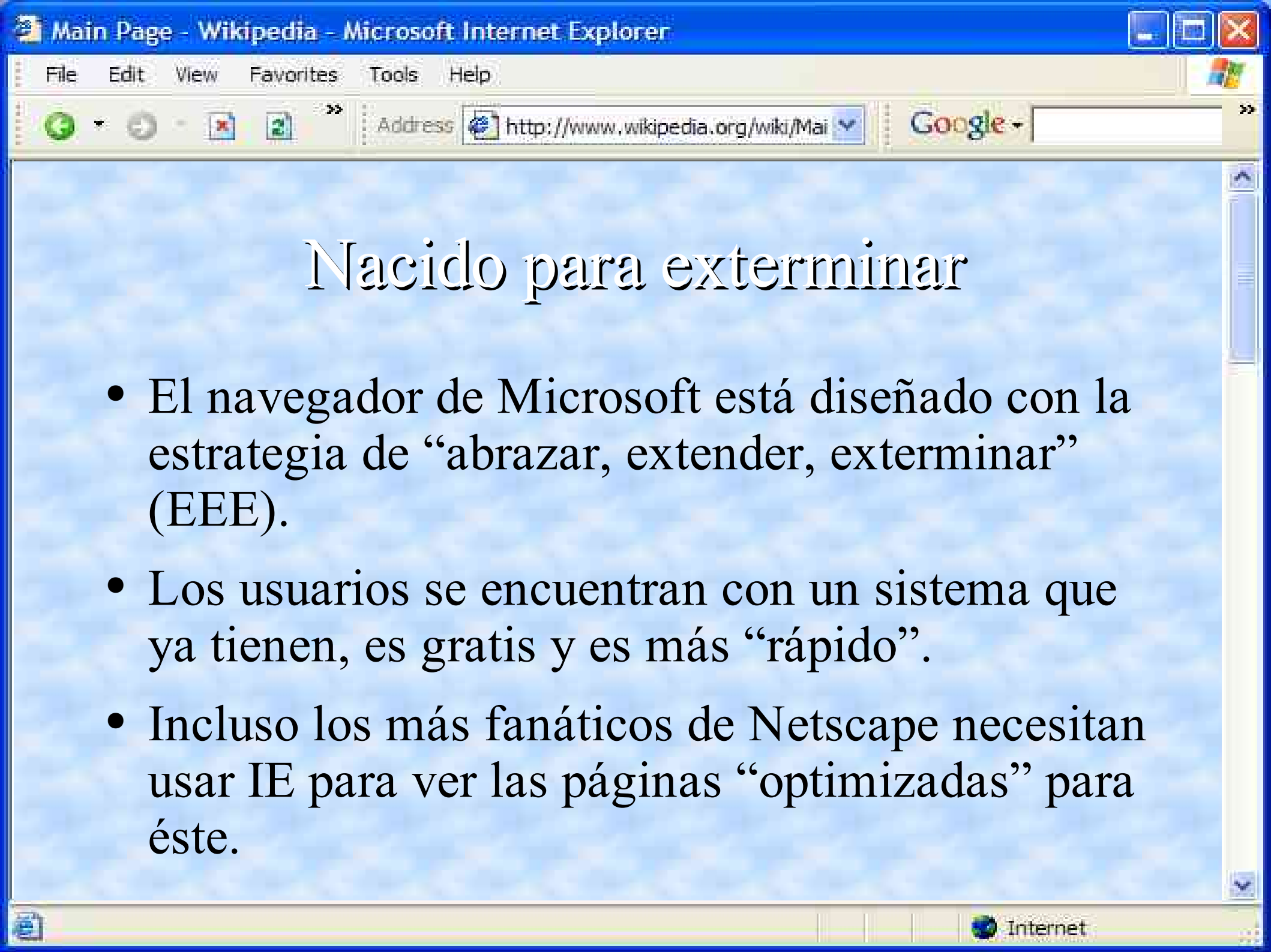
¿Qué hacer entonces?

- Microsoft realiza jugadas encaminadas a destruir tanto a Netscape como a Java.
- Para destruir a Netscape, Microsoft necesita un navegador que pueda competir con él.
- Microsoft compra la compañía que hacía el navegador Spyglass, basado en el código de Mosaic. A partir de él, hace Internet Explorer. Comienza la Guerra del Navegador.



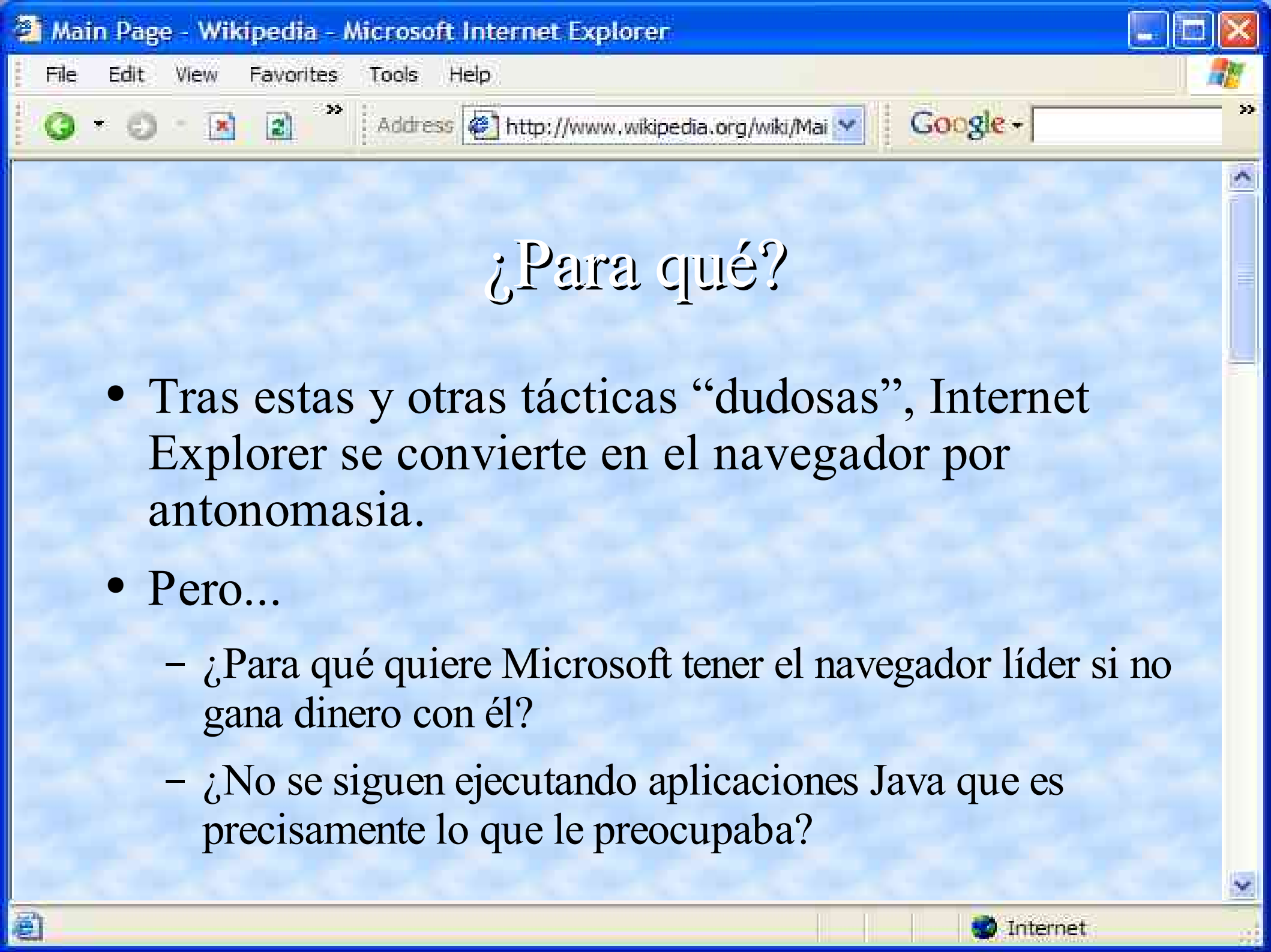
La conquista del mercado

- Netscape ocupaba el 90% del mercado, y era difícil arrebatárselo con un producto por aquel tiempo muy inferior técnicamente.
- Microsoft regala Internet Explorer.
- Además, lo integra con las nuevas copias de Windows 95. IE se precarga en memoria al iniciar Windows, de manera que parece que el programa arranca muy rápidamente.



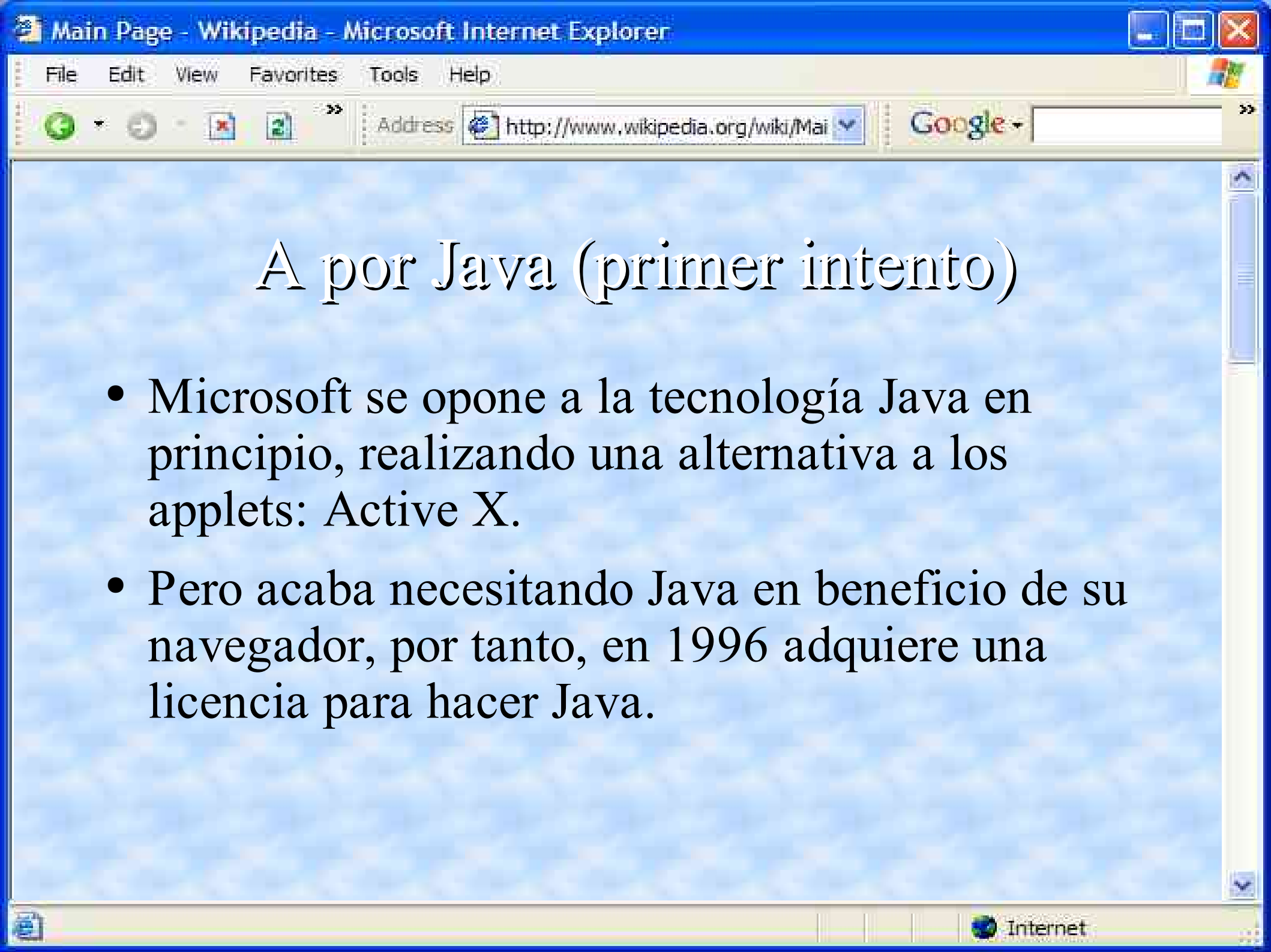
Nacido para exterminar

- El navegador de Microsoft está diseñado con la estrategia de “abrazar, extender, exterminar” (EEE).
- Los usuarios se encuentran con un sistema que ya tienen, es gratis y es más “rápido”.
- Incluso los más fanáticos de Netscape necesitan usar IE para ver las páginas “optimizadas” para éste.



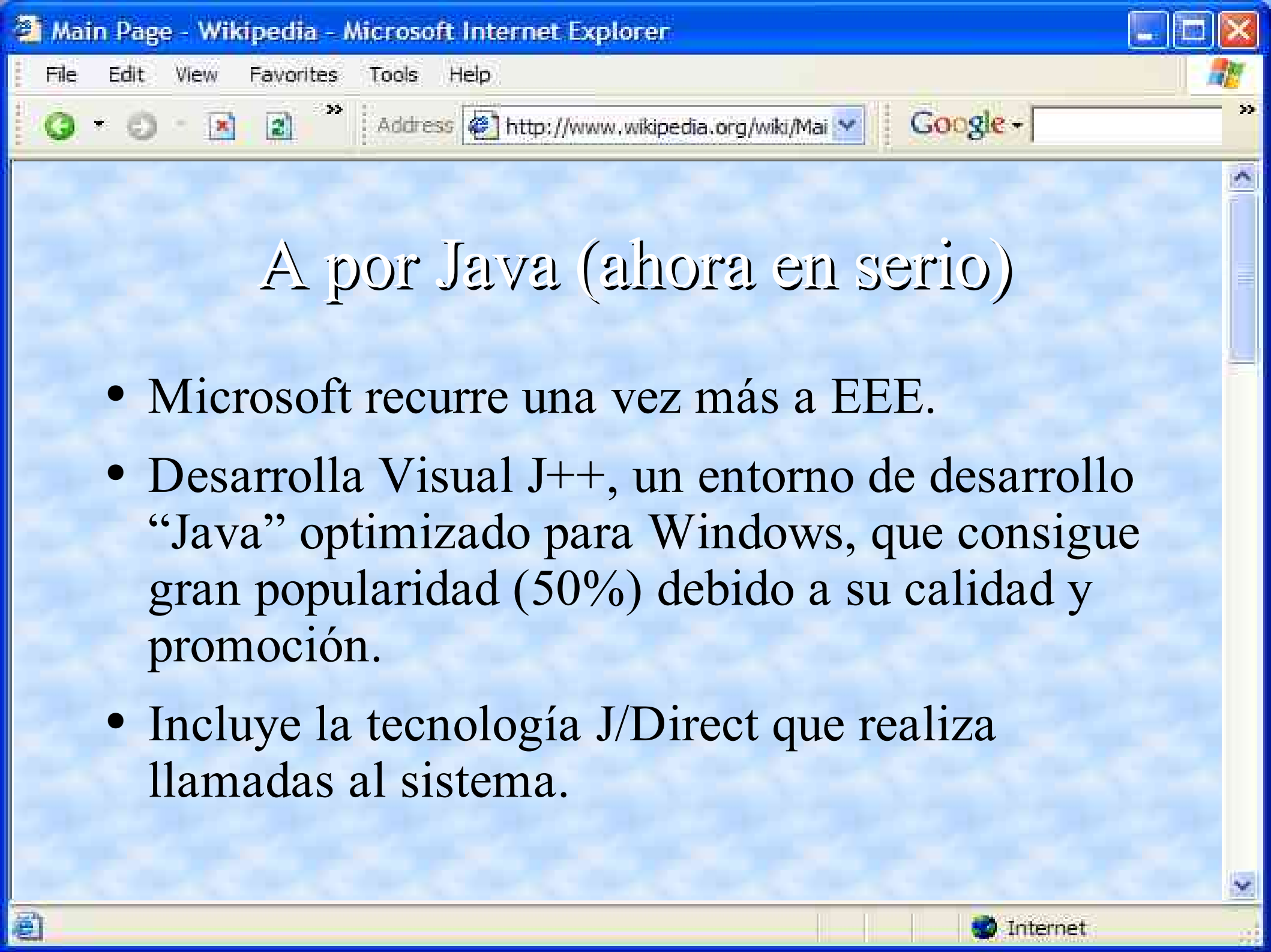
¿Para qué?

- Tras estas y otras tácticas “dudosas”, Internet Explorer se convierte en el navegador por antonomasia.
- Pero...
 - ¿Para qué quiere Microsoft tener el navegador líder si no gana dinero con él?
 - ¿No se siguen ejecutando aplicaciones Java que es precisamente lo que le preocupaba?



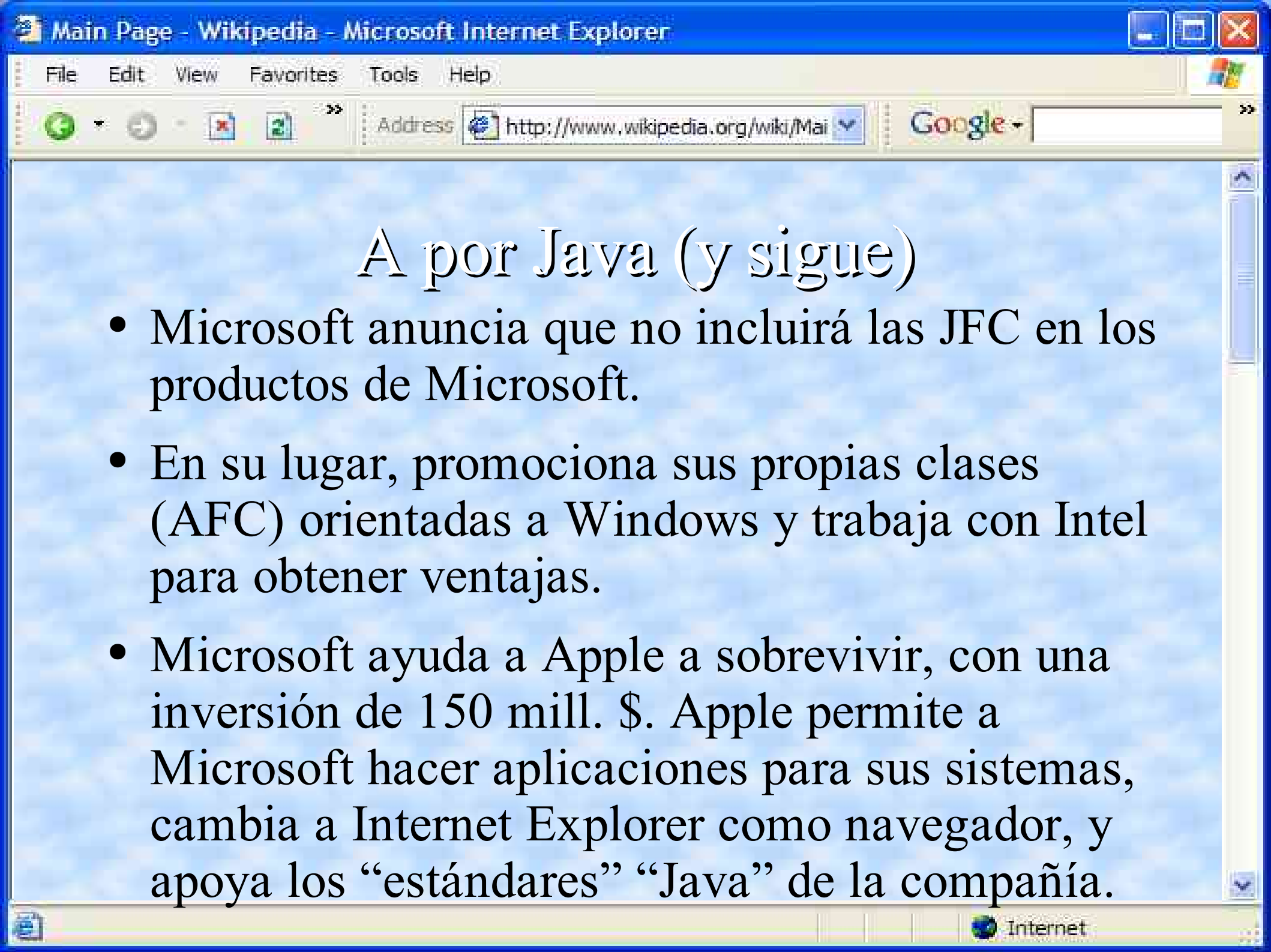
A por Java (primer intento)

- Microsoft se opone a la tecnología Java en principio, realizando una alternativa a los applets: Active X.
- Pero acaba necesitando Java en beneficio de su navegador, por tanto, en 1996 adquiere una licencia para hacer Java.



A por Java (ahora en serio)

- Microsoft recurre una vez más a EEE.
- Desarrolla Visual J++, un entorno de desarrollo “Java” optimizado para Windows, que consigue gran popularidad (50%) debido a su calidad y promoción.
- Incluye la tecnología J/Direct que realiza llamadas al sistema.



A por Java (y sigue)

- Microsoft anuncia que no incluirá las JFC en los productos de Microsoft.
- En su lugar, promociona sus propias clases (AFC) orientadas a Windows y trabaja con Intel para obtener ventajas.
- Microsoft ayuda a Apple a sobrevivir, con una inversión de 150 mill. \$. Apple permite a Microsoft hacer aplicaciones para sus sistemas, cambia a Internet Explorer como navegador, y apoya los “estándares” “Java” de la compañía.

Nos vemos en los tribunales

- En 1997, Sun demanda a Microsoft por incumplimiento de la licencia de Java.
- Sun denuncia violación de las cláusulas de compatibilidad, mientras Microsoft alega su derecho a ofrecer funcionalidades a sus usuarios.
- En 2001 Se produce un acuerdo entre Sun y Microsoft. Microsoft debe pagar 20 mill. \$ a Sun, y éste a cambio le permite mantener una versión de Java obsoleta y limitada, para facilitar la transición de los usuarios al Java de Sun.

La Muerte de Netscape



Mozilla se emancipa

- **IE consigue un motor muy bueno para visionar páginas complejas y recargadas. El de Netscape, era lento para páginas con muchas tablas.**
- **La estrategia de desarrollo de va en dirección opuesta a las necesidades: se hace completo, en lugar de ligero.**
- **En 1998 se abandona el esfuerzo por hacer un navegador comercial. Se divide el código en dos: Mozilla licenciado como libre y Netscape que sigue siendo propietario.**

Traicionados

- **En 1999 AOL compra Netscape.**
- **Un año después lanzan Netscape 6, totalmente basado en Mozilla, pero fracasa porque es muy inestable (Mozilla está en fase beta).**
- **En 2003 AOL firma un acuerdo con MS, por el que renuncia a los juicios contra el gigante por prácticas monopolísticas. AOL asegura que no significa que vaya a dejar de apoyar a Netscape.**
- **Meses después AOL para el desarrollo de Netscape y despide a todos sus trabajadores.**

El Zorro que renace de sus cenizas

- Mozilla Firefox (Firebird (Phoenix)) toma el legado de Mozilla y Netscape. ¿Podrá competir con un programa que viene de serie en el sistema operativo?



Capítulo V: ¿La lucha continúa?



La contienda en los tribunales

- 2003 Microsoft y Sun llegan a un acuerdo para prolongar la licencia de Java, para facilitar la migración.
- Microsoft decide no incluir Java en su Sistema Operativo, alegando que un Java sin ciertas funcionalidades no interesa a sus usuarios.
- Sun demanda a Microsoft por prácticas monopolísticas, y quiere obligarle a incluir Java en su Sistema Operativo.



- Microsoft desarrolla una nueva plataforma como alternativa a la plataforma de Java para empresas (J2EE).
- La alternativa posee muchos más lenguajes. Sin embargo, no es 100% portable.
- Cada plataforma han generado una cantidad de partidarios, y se prevee una gran contienda para imponerse en el mercado.

¿Java libre?

- Muchas voces se han alzado pidiendo la liberación de Java.
- IBM ha pedido que así se haga, para salvar a Java.
- En febrero Sun e IBM comenzaron a reunirse para hablar del tema.
- A pesar de todo, no parece que Sun vaya a aceptar la propuesta.

Libre contra Propietario

- La ventaja de la liberación podría ser la consolidación de la tecnología, como sucedió con NFS, así como la mejor implantación en multitud de plataformas.
- Sun teme que el Java libre se diversifique y acabar con la compatibilidad. También podría influir el dinero que percibe con los tests de compatibilidad.

Posturas sobre la liberación

- James Gosling, el autor, es favorable a la liberación.
- Jonathan Schwartz, jefe ejecutivo de Sun, parece estar en contra.
- Una portavoz de Sun, Danese Cooper, piensa que en un futuro deberá producirse, pero que a día de hoy la comunidad no está preparada.

A photograph of two men sitting on a stage. The man on the left is wearing a light-colored, patterned sweater and blue jeans, and is gesturing with his hands while speaking. The man on the right is wearing a dark suit jacket, a light blue shirt, and a patterned tie, and is listening attentively. The background is a dark blue curtain.

Addendum:
¡ Y tan amigos !



¡Y tan amigos!



2 de Abril de 2004: Microsoft y Sun Microsystems llegan a un acuerdo extrajudicial para el cese de hostilidades.

Ambas empresas anuncian que a partir de ahora van a colaborar en lugar de pelear, lo que redundará en beneficio de los usuarios de ambas compañías, y en un mayor avance tecnológico global.

Steve Ballmer: “Los auténticos ganadores son los clientes y desarrolladores que confían en nuestros productos e innovaciones”



Términos principales del acuerdo

- Microsoft paga a Sun 700 millones \$ por cuestiones antimonopolio, 900 mill. \$ por patentes, y 350 mill. en adelantado por royalties.
- Intercambio de información de tecnología de servidores.
- Microsoft continuará el soporte para Java.
- Intercambio de patentes y propiedad intelectual.
- Colaboración futura entre Java y .NET.
- Fin de las disputas judiciales en EEUU.



La mosca detrás de la oreja



- Sun atravesaba una grave crisis económica con pérdidas de cientos de millones.
- Microsoft es extremadamente generosa: lo que dan a Sun excede lo que se pedía en la contienda.
- Richard Green, vicepresidente de Sun, dimite el mismo día en que se anuncia el acuerdo.
- El fantasma de Apple planea sobre Sun.
- ¿Cómo afectará a las inversiones (cuantiosas) en Software Libre de Sun?

Enlaces

Wikipedia: <http://www.wikipedia.org/>

Historia de Java:

http://pisuerga.inf.ubu.es/lisi/Invest/Java/Tuto.Oct98/1_Intro/2_Histor.htm

Java vs Microsoft: <http://www.nikos.com/javatoys/deep/sunvsms/>

WORA: Why it matters?:

<http://www.interhack.net/people/cmcurtin/rants/write-once-run-anywhere/write-once-run-anywhere.html>

From Ms Word to Ms World: <http://www.netaction.org/msoft/world/>

Página de Sun Microsystems: <http://www.sun.com/>

Barrapunto: <http://www.barrapunto.com/>

La Guerra del Software: <http://www-etsi2.ugr.es/alumnos/mu01/guerraSoftware.html>

The Register: <http://www.theregister.co.uk/>

FIN



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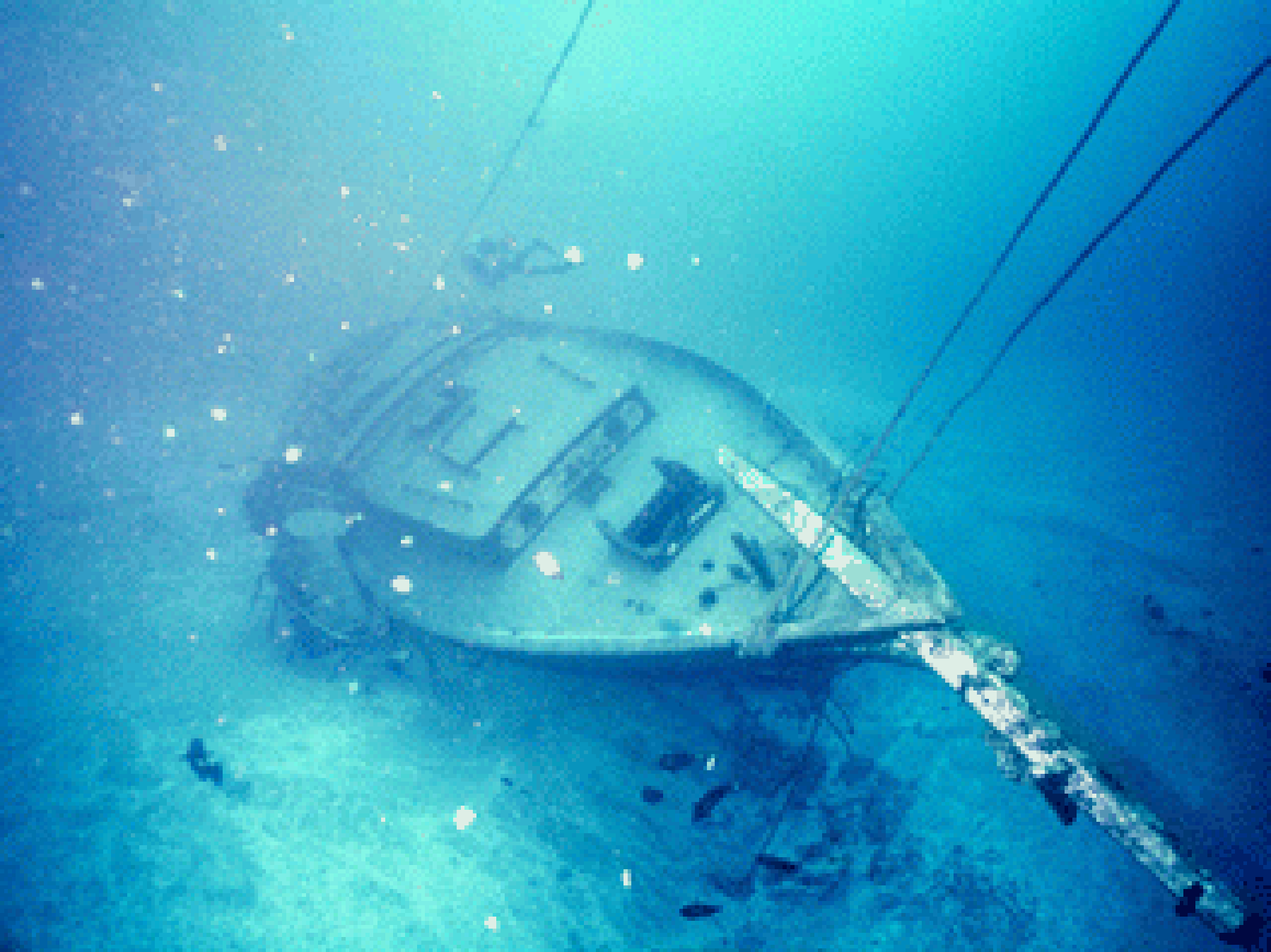
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